SEVENOAKS GASHOLDER SITE, CRAMPTON'S ROAD, SEVENOAKS

ADDENDUM TO THE PRELIMINARY ECOLOGICAL APPRAISAL:

FURTHER CONSIDERATION OF THE LIKELY IMPACTS UPON SEVENOAKS GRAVEL PITS SSSI

A Report to: CBRE

Report No: RT-MME-154152- Rev A

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MIDDLEMARCH ENVIRONMENTAL

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REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

This study has been undertaken in accordance with British Standard 42020:2013 "Biodiversity, Code of practice for planning and development".

Report Version	Date	Completed by:	Checked by:	Approved by:
Final	05/03/2021	Chris Walsh (Principal Consultant)	Hannah Train ACIEEM (Principal Consultant	Tom Docker MCIEEM (Managing Director)
Rev A	09/03/2021	Chris Walsh (Principal Consultant)	Hannah Train ACIEEM (Principal Consultant	Tom Docker MCIEEM (Managing Director)

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

VALIDITY OF DATA

The findings of this study are valid for a period of 24 months from the date of survey. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.

NON-TECHNICAL SUMMARY

In January 2021, CBRE commissioned Middlemarch Environmental Ltd to undertake further detailed consideration of the potential for the proposed development at Sevenoaks Gasholder Site on Crampton's Road in Sevenoaks, Kent, to impact upon Sevenoaks Gravel Pits SSSI. This assessment does not constitute a full Ecological Impact Assessment (EcIA) but expands on the information provided in the Preliminary Ecological Appraisal (Report RT-MME-152714-01-Rev A) and the results are considered to provide sufficient justification that significant effects on the SSSI are not expected to arise. The Preliminary Ecological Appraisal report should be read in the context of this document.

Sevenoaks Gravel Pits SSSI is sited approximately 40 m west of the proposed development site boundary.

The following possible impacts upon the SSSI were considered both for the development in isolation and cumulatively with other developments.

Construction Phase:

- **Disturbance of reasons for designation (bird species)** (via light spillage, noise, additional movement during the demolition works and construction of the scheme); and,
- **Pollution of habitat/s supporting reasons for designation (bird species)** (via debris, accidental chemical spills, contaminated surface water run-off and the improper storage of environmentally harmful materials during demolition works and construction of the scheme).

Operational Phase:

- **Disturbance of reasons for designation (bird species)** (via increased visitor numbers); and,
- **Disturbance of reasons for designation (bird species)** (via increased predation, domestic cats).

After detailed consideration, only the construction phase impacts were determined as likely to result in a significant impact to Sevenoaks Gravel Pits SSSI, prior to mitigation. Mitigation, in the form of a detailed Construction Environment Management Plan (CEMP), is considered sufficient to fully account for all likely impacts to the SSSI from the proposed development.

The recommendations of this addendum are concurrent with recommendation R1 of the Preliminary Ecological Appraisal (Report RT-MME-152714-01-Rev A), being:

R1 **Sevenoaks Gravel Pits SSSI:** The proposed works could potentially directly or indirectly impact upon Sevenoaks Gravel Pits which is designated as a Site of Special Scientific Interest. To control potential construction-phase impacts, it is recommended that a Construction Environment Management Plan (CEMP) be compiled for the site.

Additionally, it is further clarified that the submission of a CEMP (prior to the commencement of works) should be secured via an appropriately worded condition.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

In January 2021, CBRE commissioned Middlemarch Environmental Ltd to undertake further detailed consideration of the potential for the proposed development at Sevenoaks Gasholder Site on Crampton's Road in Sevenoaks, Kent, to impact upon Sevenoaks Gravel Pits SSSI. This assessment is required to inform a planning application associated with a new residential development.

Middlemarch Environmental Ltd has been commissioned to undertake the following assessments:

- Preliminary Ecological Appraisal (Report RT-MME-152714-01-Rev A);
- Bat Surveys (Report RT-MME-152714-02); and,
- Preliminary Arboricultural Assessment (Report RT-MME-152714-03).

This report forms an addendum to the Preliminary Ecological Appraisal and should be read in the context of this document.

1.2 SITE DESCRIPTION AND CONTEXT

The site under consideration is located at the former Sevenoaks gasholder site off Crampton Road, Sevenoaks, and centred at Ordnance Survey Grid Reference TQ 5286 5716. The site is located within a predominantly residential area on the northern fringes of Sevenoaks and Greatness. At the time of the survey the site as dominated by areas of hardstanding which have started to become colonised by ephemeral vegetation, with scrub, scattered trees and small areas of grassland located around the site boundaries.

The site is bordered by Crampton Road to the east, residential properties to the north, further residential and commercial properties to the south and Otford road to the west. The wider landscape is dominated by residential properties and agricultural land. Sevenoaks Wildfowl Reserve is located approximately 80 m west from the site.

1.3 DOCUMENTATION PROVIDED

The conclusions and recommendations made in this report are based on information provided by the client regarding the scope of the project. Documentation made available by the client is listed in Table 1.1.

Document Name / Drawing Number	Author
Sevenoaks Gasholder Location Plan / 0330_0050	Max Architects

Table 1.1: Documentation Provided by Client

2. METHODOLOGIES

2.1 INTRODUCTION

The methodology for this assessment is bespoke, significantly expanding on the level of consideration of impact that would usually be undertaken as part of a Preliminary Ecological Appraisal. The methodology for the further assessment is adapted from the criteria set out in the Chartered Institute of Ecology and Environmental Management's (CIEEM) '*Guidelines for Ecological Impact Assessment in the UK and Ireland'* (2019)[1] (herein referred to as the 'CIEEM Guidelines'). The methodology comprises:

- Determination of the ecological baseline of the ecological receptor (Sevenoaks Gravel Pits SSSI);
- An assessment of the significant effects on important ecological receptors from the construction and operational phases of the proposed development;
- A review of the mitigation and assessment of residual effects; and,
- A cumulative assessment with other development proposals in the surrounding area.

2.2 SCOPE OF ASSESSMENT

The scope of this assessment is limited to a single site, Sevenoaks Gravel Pits SSSI.

The assessment considers all activities associated with the construction and operational phases of the proposed development which could result in a harmful impact upon: the reasons for designation of the SSSI; habitats upon which the reasons for designation are reliant; ecological systems that underpin the habitats upon which the reasons of designation are reliant; or could otherwise result in a reduction in conservation status of any of the SSSI parcels.

2.3 DESK STUDY

Information from the desk study previously undertaken as part of Preliminary Ecological Appraisal (Report RT-MME-152714-01-Rev A) was utilised for this additional assessment. No additional desk study was considered as necessary to be undertaken.

2.4 FIELD SURVEYS

No additional field surveys were undertaken as part of this assessment.

[1] Available at: https://cieem.net/wp-content/uploads/2019/02/Combined-EclA-guidelines-2018-compressed.pdf

3. DESCRIPTION OF ECOLOGICAL RECEPTOR

3.1 SEVENOAKS GRAVEL PITS SSSI

Sevenoaks Gravel Pits SSSI is a nationally important site designated for its breeding bird populations. It is approximately 40 m west of the boundary of the proposed development. The following information is taken from the SSSI Citation[2] for Sevenoaks Gravel Pits:

Country:	England
Administrative Region:	Kent
Grid Reference:	TQ 522 569
Notification Date:	25/01/1989
Confirmation Date:	N/A
Status:	Site of Special Scientific Interest
Area (ha):	73.7

3.1.1 Description and Reasons for Notification:

The interest of this group of lakes, formed by the flooding of the former gravel workings and fed by the River Darenth, centres on its breeding bird populations. Extensive landscaping to create shallows, spits and islands, and the planting of trees and aquatic plants have provided conditions suitable for both breeding and wintering birds.

The most numerous breeding species are Canada and greylag geese, mallard and tufted duck. Many other water birds breed including great-crested grebe, kingfisher, moorhen and coot. Wintering and passage wildfowl include pochard, shelduck, teal and shoveler, and passage waders are also attracted including greenshank and green sandpiper. The uncommon little ringed plover is a regular breeding species here.

The woodland and reed beds support a typical range of song birds including whitethroat, reed, and sedge warblers. There is also a large rookery, and a sand martin colony in a sand face in the south of the site. Sand martins have undergone a major fluctuation in population levels in recent years and this face supports one of the few significant colonies in West Kent.

The botanical and entomological interest of the site is also known to be developing. Thirteen species of Odonata (dragonflies) are present including the locally-distributed downy-emerald dragonfly *Cordulia aenea*. Plants of note include small cud-weed *Filago minima*, dwarf elder *Sambucus ebulus*, and slender bird's-foot trefoil *Lotus angustissimus*.

3.1.2 Monitored SSSI Features and Current Condition:

Sevenoaks Gravel Pits SSSI contains one parcel, covering its full area of 73.7 ha. Two features within the parcel are considered monitoring features: assemblages of breeding birds – lowland open waters and their margins; and, populations of nationally rare and scarce dragonfly species – *Cordulia aenea*, (Downy Emerald).

The single SSSI parcel was last assessed by Natural England on 27/02/2009 and was found to be in 'Favourable' conservation condition. The following comments are provided by the Natural England assessor to support the determined conservation status of the SSSI[3]:

> *"This assessment is based upon bird records. Data supplied by BTO (WeBs counts for 2006 and 2007) indicates that the main criterion (BTO assemblage score maintained in relation to that at time of SSSI designation) is met and in fact exceeded. The re-calculated assemblage score based on the data is 45.5, well over the baseline index of 22.5 for the site at designation. This is on the assumption that the following species are breeding or at least likely to be utilising the site for key functions during breeding period: gadwall, great crested grebe, kingfisher, little grebe, little-ringed plover, mute swan, pochard, ringed plover, tufted duck and water rail."*

[2] Available at: https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1001202&SiteName=Seven&countyCode=&responsiblePerson=
[3] Available at: https://designatedsites.naturalengland.org.uk/ReportUnitCondition.aspx?SiteCode=S1001202&ReportTitle=Sevenoaks%20Gravel%20Pits%20SSSI

4. ASSESSMENT OF POTENTIAL IMPACTS

4.1 POTENTIAL IMPACTS AND EFFECTS ARISING AS A RESULT OF THE PROPOSALS

Following a review of the proposals it is considered that there are four impact pathways which could lead to potential adverse effects upon the reason for designation of Sevenoaks Gravel Pits SSSI:

Construction Phase (direct impacts):

- **Disturbance of the reasons for designation (bird species)** (via light spillage, noise, additional movement during the demolition works and construction of the scheme); and,
- **Pollution of habitat/s supporting the reasons for designation (bird species)** (via debris, accidental chemical spills, contaminated surface water run-off and the improper storage of environmentally harmful materials during demolition works and construction of the scheme).

Operational Phase (indirect impacts):

- **Disturbance of the reasons for designation (bird species)** (via increased visitor numbers); and,
- **Disturbance of the reasons for designation (bird species)** (via increased predation, domestic cats).

These issues are discussed in more detail below.

4.2 CONSTRUCTION PHASE

4.2.1 Disturbance of the reasons of designation (bird species)

Visual disturbance

During the construction phase the main source of visual disturbance will be the presence of workers and construction vehicles around the site. A review of disturbance effects to avifauna, and in particular, construction effects to waterfowl by Cutts et al. (2009)[4] indicates that water-birds are susceptible to disturbance by construction activities. It was reported that construction workers within 200 m of water birds can cause moderate disturbance that could result in water birds leaving the immediate vicinity of the works.

The development site itself offers no terrestrial habitat for any of the bird species noted within the SSSI's citation and can only be considered to provide very limited foraging habitat for these species. However, portions of the SSSI, within 200 m of the boundary of the development site, are considered likely to provide both breeding and foraging habitat for several the bird species that constitute the SSSI's reasons for designation.

A belt of existing mature semi-natural broadleaved woodland lies between the site of the proposed development and the nearest areas of appropriate foraging habitat for bird species detailed within the site's citation (i.e. the main waterbody within the north east of the SSSI). This existing tree belt will likely screen most constriction works occurring on site, reducing the scale of likely impact that could be attributed to visual disturbance.

Based on the limited scale of work, the lack of suitable breeding and limited foraging habitat on the site of proposed development and the screening effect of the existing belt of mature trees, it is considered that that impacts to qualifying species from construction phase visual disturbances are likely to be negligible.

However, as there may be cumulative impacts with other developments which may occur at the same time as the proposed development there is the potential for these negligible impacts to be compounded. As such, precautionary mitigation measures are provided in Chapter 5 to reduce the scope of harm to no likely impact.

Noise disturbance

A review of disturbance effects to avifauna, and in particular, construction effects to waterfowl by Cutts et al. (2009) indicates that water-birds are susceptible to disturbance by construction noise. The review indicates that works resulting in noise over 50 dB result in moderate disturbance to water-birds and any works over 85 dB could result in high disturbance to water-birds, causing them to leave the area.

[4] Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010001/EN010001-005116-HPC-NNBPEA-XX-000-RET-000089%201.pdf

As detailed above, the development site itself offers no appropriate breeding habitat for any of the bird species noted within the SSSI's citation and only very limited foraging habitat for these species. However, portions of the SSSI, within 200 m of the boundary of the development site, are considered likely to provide both breeding and foraging habitat for several the bird species that constitute the SSSI's reasons for designation.

A busy 'A' road (the A225) lies between the application site and the eastern boundary of the SSSI. This road can be expected to generate high levels of noise associated with continuously movement of traffic. Considering the current favorable conservation status of the SSSI it can be concluded that the persistent traffic noise generated by the A225 dose not have a negative impact upon the breeding and foraging ability of the bird species, that constitute the reasons for designation, which those species likely growing habituated to its constant occurrence. It is considered likely that the noise generated by the A225 will mask much of the noise generated within the proposed development site during the construction phase, reducing the scale of likely impact that could be attributed to noise disturbance.

As previously noted, a belt of existing mature semi-natural broadleaved woodland lies between the site of the proposed development and the nearest areas of appropriate foraging habitat for (the majority) of bird species detailed within the site's citation (i.e. the main waterbody within the north east of the SSSI). This existing tree belt will likely act as a partial buffer against noise disturbance that may emanate from the development site during the construction process, further reducing the scale of likely impact that could be attributed to noise disturbance.

Based on the limited scale of work, the lack of suitable breeding and foraging habitat on the site of proposed development and the screening effect of the existing belt of mature trees, it is considered that that impacts to qualifying species from construction noise disturbance is likely to be negligible.

However, as there may be cumulative impacts with other developments which may occur at the same time as the proposed development there is the potential for these negligible impacts to be compounded. As such, precautionary mitigation measures are provided in Chapter 5 to reduce the scope of harm to no likely impact.

Light disturbance
Although the balance of lighting is of importance to bird species (as artificial lighting at night may interrupt natural behaviours and may expose individuals to higher predation levels or disrupt navigational abilities), additional light spill onto the adjacent SSSI is likely to be a negligible increase compared to the existing light spillage generated from the pre-existing industrial and retail units (to the west and south west of site of the proposed development) and the A225 (which lies between the development site and the SSSI).

As detailed above, the development site itself offers no appropriate breeding habitat for any of the bird species noted within the SSSI's citation and only very limited foraging habitat for these species. However, portions of the SSSI, within 200 m of the boundary of the development site, are considered likely to provide both breeding and foraging habitat for several the bird species that constitute the SSSI's reasons for designation.

The belt of existing mature semi-natural broadleaved woodland lies between the site of the proposed development and the nearest areas of appropriate foraging habitat for bird species detailed within the site's citation (i.e. the main waterbody within the north east of the SSSI). This existing tree belt will likely screen the majority of constriction phase light disturbance, reducing the scale of likely impact.

Based on the limited scale of work, the lack of suitable breeding habitat, the low quality of the foraging habitat in close proximity to the site and the known distribution of qualifying bird species, it is considered that that impacts to qualifying species from construction light disturbance is likely to be negligible.

However, as there may be cumulative impacts with other developments which may occur at the same time as the proposed development there is the potential for these negligible impacts to be compounded. As such precautionary mitigation measures are provided in Chapter 5 to reduce the scope of harm to no likely impact.

4.2.2 Pollution of habitat/s supporting the reasons for designation (bird species)

The proposed development and associated works have the potential to result in significant harm to individual bird species that constitute the reasons for designation of the SSSI (and/or the habitats upon which these species are reliant upon) via debris, accidental chemical spills, contaminated surface water run-off and the

improper storage of environmentally harmful materials during demolition works and construction of the scheme.

Should a pollution event occur the scope of harm is likely to be small and localised to the area surrounding the development site, however certain substances that may be used during the construction phase may be highly toxic to aquatic life and habitats which could result in a significant impact across the multiple water bodies with the SSSI.

Therefore, mitigation measures must be put in place to address these potential significant impacts. These mitigation measures and best practice methods of working are outlined in Chapter 5. If adhered to, these mitigation measures are considered sufficient to reduce the scope of harm to no likely impact.

4.3 OPERATIONAL PHASE

4.3.1 Disturbance of the reasons for designation (bird species)

Increased Visitor Numbers

The proposed development is for up to 136 net residential units (C3) with space being provide within the scheme to deliver sufficient open space provision for the new residents. The usage of the SSSI by new residents for open air recreation is not an intentional outcome of the proposed scheme but, due to the close proximity of the SSSI to the development, is considered likely to occur during the development's operational phase (i.e. occupation of units).

However, despite the fact that the SSSI lies within 40 m of the proposed development, direct access to it is blocked along the entirely of the SSSI's eastern boundary due to the presence of intervening private land, high perimeter fencing and mature tall hedgerows.

Along the western boundary the majority of the SSSI is also not permeable to public access, due to intervening private land and the existing railway line.

The nearest public access to the SSSI from the proposed development would require a journey of approximately 2 km, entering the SSSI at the Sevenoaks Wildlife Reserve Center (operated by the Kent Wildlife Trust), which is accessed off the A25. Visitor surveys conducted at similar sites (i.e. offering open air recreation in natural settings) have concluded that the main reason members of public choose to visit these types of locations is dog walking[5] [6] [7] and that the average total distance walked (by both walkers and dog walkers) is 2.4 km[7].

Due to the distance that occupants of the proposed development will need to travel to access the SSSI being over 4 km (round trip), it is reasonable to conclude that additional 'walk-in' visits to the site will be an infrequent occurrence with additional visits to the SSSI limited only to individuals willing to first travel to it by vehicular means. Additionally, the primary reason that new residents from the proposed development could be expected to visit the SSSI, dog walking, is a prohibited activity within the whole site (enforced by Kent Wildlife Trust staff), with only guide dogs being allowed.

Despite the apparent short (linear) distance between the SSSI and the site of proposed development, it is considered that the number of additional visits to the site likely to be generated by an additional 136 residential units will be negligible and highly unlikely to result in a material impact (via increased disturbance) on any of the bird species detailed as reasons for designation within the sites citation.

This conclusion is supported by the SSSI's current favorable conservation status, despite being surrounded on three sides (east, south, and west) with existing areas of dense residential development. This suggests that visitor disturbance (linked to local residential development) may not be a significant factor affecting the breeding and foraging success of the noted bird species utilizing the site.

[5] Underhill-Day, J.C. 2005. A literature review of urban effects on lowland heaths and their wildlife. Natural England Research Report 623. Natural England, Peterborough.
[6] Liley, D., Jackson, D., & Underhill-Day, J.C. 2005. Visitor access patterns on the Thames Basin Heaths. Natural England Research Report in press Natural England, Peterborough.
[7] Footprint Ecology 2018. Cannock Chase Visitor Survey, Available at: https://www.staffordbc.gov.uk/sites/default/files/cme/DocMan1/Planning%20Policy/Further%20Information%20and%20Evidence/Habitats%20Regulation%20Assessment/2018%20Cannock%20Chase%20Visitor%20Survey%20Final%20Report_Can_Chase_SAC.pdf

Increased predation (domestic cats)
New residential development close to the SSSI will be likely to increase the cat population of the area. With 8 million domestic cats and a further 800,000 feral cats in Britain, the British cat population is a formidable addition to the natural predators of the British countryside[5]. Underhill-Day (2005) suggests an average figure of 320 – 330 cats per 1,000 households, suggesting the proposed development would on average only be expected to result in a nominal net increase of 44.2 cats within the local area.

Comparisons of several studies give an annual prey catch per cat of a little less than 29 items. This would imply that at least 9,200 prey will be taken per 1,000 households per year. However, this (rounded) figure is conservative because not all prey caught will be brought home by cats and recorded. Underhill-Day (2005) suggest that threat from cat predation is significantly higher within 400 m of residential development.

There is no specific information available to suggest the current impacts of domestic cat predation on the bird species in Sevenoaks Gravel Pits SSSI. But in other national and European designated sites it is known that cats can account for significant numbers of bird deaths, especially among ground nesting birds as they are much less able to avoid predatory cats.

It is considered unlikely that the bird species noted to utilize the site for overwinter feeding (pochard, shelduck, teal, shoveler, greenshank, green sandpiper and other passage waders) are significantly impacted upon by the predatory actions of cats due to either their size; aquatic feeding habits; and short period that they are present within the SSSI.

The following bird species are noted within the Sevenoaks Gravel Pits SSSI citation as utilising the site for breeding, and so are considered at greatest risk from the impact of increased predation from cats:

- Canada goose *(Branta canadensis);*
- Greylag goose *(Anser answer);*
- Mallard *(Anas platyrhynchos);*
- Tufted duck *(Aythya fuligula);*
- Great-crested grebe *(Podiceps cristatus);*
- Kingfisher *(Alcedo atthis);*
- Moorhen *(Gallinula chloropus);*
- Coot *(Fulica atra);*
- Little ringed plover *(Charadrius dubius);*
- Whitethroat *(Sylvia communis);*
- Reed warbler *(Acrocephalus scirpaceus);*
- Sedge warbler *(Acrocephalus schoenobaenus);*
- Rook *(Corvus frugilegus)*; and,
- Sand martin *(Riparia riparia).*

Of these species, Canada goose, greylag goose, mallard and tufted duck (although all ground nesting) are considered to be too large to be threatened by predation from cats, with their offspring (once hatched) being able to enter water to avoid predation. Due to their nesting habits, kingfisher, moorhen, coot, whitethroat, reed warbler, sedge warbler, rook and sand martin are all considered to be unlikely to be predated 'on-the nest' by cats due to the aquatic, arboreal or subterranean locations that the species utilize for nesting.

Little ringed plovers nest within a small depression on bare gravel / shingle around flooded gravel pits, sandy riverbanks and reservoirs. Once hatched, their chicks main defense against predation is camouflage, being unable to enter the water to escape and taking between 21-24 days to fledge. As such, there is considered a reasonable potential for breeding little ringed plovers to be impacted upon by the predatory actions of cats.

As already noted, due to the small scale of the proposed residential development it can only be expected to result in a nominal increase in the local cat population. It is also noted that both a busy 'A' road (the A225) and lengths of tall fence are present between the development site and most direct ingress point for cats into the SSSI. Whilst this may reduce that level of access by cats from the proposed development, it is not considered sufficient to fully prevent it occurring. However, as the little ringed plovers nesting habitat is restricted to areas of gravel / shingle it is considered that only the small shingle islands north east of the Wildlife Reserve Centre offer appropriate nesting conditions. These islands are approximately 680 m from the site of proposed development (direct linear distance) and over 1.2 km away by the shortest route a cat could be expected to take. Both distances are significantly further than the 400 m area from a residential

development's boundary in which significant levels of cat predation (associated with that development) can be expected to occur (Underhill-Day 2005).

Additionally, the small shingle islands lie between 15 m and 115 m distant from the shore and so are likely to offer a high level of protection to little ringed plovers to the predatory actions of cats.

Despite the apparent short (linear) distance between the SSSI and the site of proposed development, it is considered highly unlikely that the development will generate a material increase in the level of predation of any bird species detailed within the SSSI's citation.

This conclusion is supported by the SSSI's current favorable conservation status, despite being surrounded on three sides (east, south, and west) with existing areas of dense residential development. This suggests that cat predation (linked to local residential development) may not be a significant factor affecting the breeding and foraging success of the noted bird species utilizing the site.

5. MITIGATION MEASURES

This section of the report presents the mitigation to be delivered to ensure that any likely impacts to the reasons for designation of Sevenoaks Gravel Pits SSSI, or which could adversely impact upon the site's current favorable conservation status, which may occur as a result of the proposed works can be controlled to an acceptable level to allow the works to proceed.

Chapter 4 identified that there were two potential pathways (pollution and disturbance during the construction phase), through which the proposed works, cumulatively with other developments and in the absence of mitigation, could potentially impact on the integrity of the SSSI.

The following mitigation measures are considered sufficient to allow the Local Planning Authority (LPA) to conclude that, if enacted, there is no reasonable likelihood that the proposed development will result in significant harm to the Sevenoaks Gravel Pits SSSI.

5.1 CONSTRUCTION PHASE IMPACTS (DISTURBANCE AND POLLUTION CONTROL MEASURES)

Construction Environment Management Plan
Prior to the commencement of works a Construction Environment Management Plan (CEMP) should be submitted to the Local Planning Authority in support of the proposed development.

This final CEMP must include methods of reducing the risk of disturbance including, but not limited to,:

- Potential screening of the site for the duration of works;
- Ensuring all lighting utilised for night work will be the minimum required for health and safety;.
- Careful consideration given to the placement of lighting and its direction (i.e. no lighting to be directed at the surrounding habitats);
- Use of debris netting to catch debris blown during the works;
- Plant and wheel washing to be carried out in a designated area of hard standing at least 20 metres from any watercourse or surface water drain;
- Spill kits are to be placed in strategic areas and be clearly visible. Operatives working close to any watercourses are to be trained to use the spill kits;
- All storage areas and site offices are to be 20m from the watercourse;
- Storage of fuel, oils and any chemicals are to be in double-skinned containers, locked, clearly labelled as to contents, in a secure compound, stood in an impervious bund that is 110% of the volume of the tank and that all static plant should have a drip tray under it;
- Re-fuelling should be carried out only at designated points with an absorb spill kit adjacent, at must occur least 20 m from any watercourse or surface water drain;
- Vehicles, equipment and materials to be stored in designated areas, indicated on the site management plan having been agreed by the Environmental Clerk of Works and/or site manager; These designated areas are to be located away from any ditches or watercourse frontages; and,
- All substances to have full COSHH assessment. Operatives using these substances will be experienced in their use and fully briefed on the COSHH assessment.

The submission of the CEMP to the LPA prior to commencement of works and its enactment thereafter could be secured via an appropriately worded planning condition.

6. CONCLUSION AND RECOMMENDATIONS

All recommendations provided in this section are based on Middlemarch Environmental Ltd's current understanding of the site proposals, correct at the time the report was compiled. Should the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate.

The ecological mitigation hierarchy should be applied when considering development which may have a significant effect on biodiversity. The ecological mitigation hierarchy, as set out in the National Planning Policy Framework (NPPF), and the National Planning Practice Guidance (NPPG) should follow these principles:

- **Avoidance** – development should be designed to avoid significant harm to valuable wildlife habitats and species.
- **Mitigation** – where significant harm cannot be wholly or partially avoided, it should be minimised by design or through the use of effective mitigation measures.
- **Compensation** – where, despite whatever mitigation would be effective, there would still be significant residual harm, as a last resort, compensation should be used to provide an equivalent value of biodiversity.

6.1 CONCLUSION

It is concluded that there are two potential pathways through which the proposed works (cumulatively with other developments and in the absence of mitigation), could potentially impact upon Sevenoaks Gravel Pits SSSI. These are:

- **Disturbance of the reasons for designation (bird species)**, construction phase only; and,
- **Pollution of habitat/s supporting the reasons for designation (bird species)**, construction phase only.

Mitigation, in the form of a detailed Construction Environment Management Plan (CEMP), is considered sufficient to fully account for all likely impacts to the SSSI from the proposed development. A recommendation regarding this document is provided in Section 6.2.

6.2 RECOMMENDATIONS

The following recommendation is made regarding Sevenoaks Gravel Pits SSSI:

R1 Creation and Submission of CEMP

Prior to the commencement of works a Construction Environment Management Plan (CEMP) should be created for the proposed scheme and submitted to the Local Planning Authority. The avoidance and mitigation measures within the final CEMP will adhere to appropriate national guidelines and best practice principles. The avoidance and mitigation measures will be sufficient in their scope and scale to fully avoid or mitigate against any likely significant harmful impacts to the adjacent SSSI during the construction phase of the development.

The submission of the CEMP to the Local Planning Authority prior to commencement and its enactment thereafter could be secured via an appropriately worded planning condition.