Green
Environmental
Consultants

FIRS WOOD CLOSE
NORTHAW PARK
POTTERS BAR
HERTFORDSHIRE

BIODIVERSITY NETT GAIN

August 2019

for:

Swing Ltd

Report number: 1178/5

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FIRS WOOD CLOSE, NORTHAW PARK, POTTERS BAR, HERTFORDSHIRE BIODIVERSITY NETT GAIN

1 INTRODUCTION

This report has been prepared by Green Environmental Consultants Ltd on behalf of Swing Ltd and relates to the proposed residential development of land at Firs Wood Close, Northaw Park, Potters Bar, Hertfordshire, EN6 4BY (the 'Site').

The Site has been visited on a number of occasions between 2017 and 2019 and surveys have been undertaken. The survey results are available in other reports. This document addresses the issue of the requirement under the NPPF for Biodiversity Nett Gain, hereafter called BNG.

BNG requires that a development provides more biodiversity mitigation or enhancement than it loses to the development. To assess BNG a calculation is made of the existing biodiversity value of the Site, using a number of factors to make this calculation, repeats it for the proposed development, and calculates whether this is a positive figure (nett gain) or a negative one (nett loss). If the figure is negative and cannot be made positive by additional on-site mitigation, then off-setting (providing habitat gain elsewhere) will be required.

The BNG calculator used is the Warwickshire, Coventry and Solihull (WC&S) Habitat Impact Assessment Calculator V1.9. Although produced and updated by WC&S it has been adopted by DEFRA and is more commonly called the DEFRA metric. A version 2.0 is supposedly to be available in mid-2019 but at the time of this assessment, version 1.9 was the most up-to-date.

2 ASSESSMENT METHODOLOGY

2.1 General

The metric applies only to habitats. It does not assess the value or impacts of plants, protected species or other wildlife.

The calculations are made using a spreadsheet which uses habitats (area) and their condition, to calculate Habitat Impact Scores (HIS), Habitat Mitigation Scores (HMS) and finally the overall Habitat Biodiversity Impact Score (HMS - HIS). Once these are derived for each habitat an overall site score is arrived at.

This process is repeated for the proposed mitigation and habitat enhancement to calculate a similar score for the development/scheme.

The second value is subtracted from the first to produce a final figure. If this is positive then there is a Biodiversity Nett Gain, but if negative then there would be, in the absence of further action, a biodiversity loss. The final sheet of the calculator produces figures for habitat required as compensation for a negative score, the costs of providing it and national schemes within which this can be achieved eg HS2. If the total figure is positive then there is no requirement on this final sheet.

The metric calculations and results can be found on attached document '1178.5.1 FWC BIC Scheme'.

2.2 Firs Wood Close Assumptions and Adaptations

The metric has been devised assuming that any requirement for additional mitigation or compensation will be via a mechanism for paying in to a national off-setting scheme. Unsurprisingly for a scheme which replaces grassland with buildings, hardscape and planting, the overall Habitat Biodiversity Impact Score for the scheme has been calculated as -1.69. In other words a negative score which requires some off-setting.

The final sheet of document 1178.5.1 FWC BIC Scheme indicates what is required for a like-for-like (grassland) off-setting and how this might be achieved.

A problem with the metric is that it only considers habitats and not other biodiversity values. The reports of Site surveys all show a site of low ecological value but with habitats and species nearby of biodiversity importance. This has been taken in to consideration in the decision to provide off-setting close to the Site instead of paying in to a national scheme, in order to enhance local biodiversity.

The metric as devised, does not allow for calculations of off-setting other than the area and cost calculations on the final sheet which are of little use in assessing the value of locally produced off-setting. To give figures for the scheme off-setting, another calculation has been undertaken using the metric so as to ensure that the same calculations and trading down figures have been applied. These calculations can be found on metric, '1178.5.2 FWC BIC Off-setting'. Note that the proposed off-setting habitats have been entered on sheet 2 second table - for on-site mitigation as there is no option for a table for off-site mitigation. This is used in order to obtain figures for the HIS and HMS and finally the HBIS in conformity with the previous calculation weighting. The sheet gives an error message for the area as it "requires" the site habitat area to equal the proposed which it will not be in this case as it is off-site. This area error can be ignored as the principle is to achieve the scores for each habitat provided in compensation, and an overall calculation of nett gain or nett loss.

3 PROPOSED MITIGATION/OFF-SETTING

The surveys found a small population of Great Crested Newts in one pond near to the Site. A desk study suggests that this is a fairly old pond which newts may have been present in for some time. It is the only pond shown on historic maps of the area. The newt survey found no evidence of Great Crested Newts in any of the new attenuation ponds produced for a previous development, suggesting that they have not spread beyond their original foothold.

The intention is to provide two new wildlife friendly ponds surrounded by grassland (the soils are slightly acidic and so an acidic grass mix is likely to be selected). These will be managed for wildlife and not used for attenuation. Connecting habitat between those two locations and the existing newt pond will be retained and enhanced to encourage spread beyond the single pond where they are vulnerable to catastrophic events. In association with that, an area of poor and neglected scrub which lies between the Site and the breeding pond will be brought back in to management. A number of features including newt refugia and hibernacula will be included in the scrub area as well as around.

The locations for these features are shown on figure 1178/5 Compensation - New Pond Locations at the end of this document.

Provision of more diversity of habitats and features which would buffer the only newt breeding pond in the immediate area, thereby providing protection and enhancement for that population, is considered to be of greater benefit to local wildlife than payment to off-set in a completely different location.

4 BIODIVERSITY NETT GAIN CALCULATIONS

The summary sheet for the proposed development (1178.5.1 FWC BIC Scheme) shows that there would be an overall Habitat Biodiversity Value (Impact Score) of **-1.69**. There would be a Hedgerow Biodiversity Value of +0.67 and a Connectivity Value of +0.26.

In other words there would be a gain in linear habitats and connectivity to surrounding area but a loss of area habitats.

Using the figures for the proposed nearby off-setting habitats (1178.5.2 FWC BIC Off-setting summary sheet) indicates a Habitat Biodiversity Value (Impact Score) of **+2.81**.

Using the original figure of -1.69 and applying to it the additional habitat creation and enhancement of nearby off-setting (+ 2.81) gives a **Biodiversity Nett Gain of 1.12 value**.

Therefore no additional biodiversity enhancement or other off-setting is required.

5 GLOSSARY

BNG - Biodiversity Nett Gain. The difference between habitats lost, gained and enhanced.

BNG metric - a Biodiversity Nett Gain calculator. There are two main versions : one produced by the Warwickshire, Coventry and Solihull Council and adopted by DEFRA and sometimes called the DEFRA metric, and another produced by the Environment Bank. The version used in this document is the WC&S Habitat Impact Assessment Calculator V1.9.

HIS - the Habitat Impact Score.

HMS - Habitat Mitigation Score

HBIS - the Habitat Biodiversity Impact Score or Habitat Biodiversity Value. This is calculated by subtracting the HIS from the HMS (HMS - HIS).

A - Located on the opposite side of Firs Wood Close to the Site and so very close. It is also close to the pond known to have Great Crested Newts (pond 3). This location will involve removal of some invading scrub and a small number of planted shrubs and small trees along the south-eastern side. The latter would be removed to open up the new pond to catch more sunlight (shading is one of the issues pertaining to pond 1).

B - Located on the edge of Hook Wood close to buildings. This area has fewer trees and has open areas. There was evidence of use by local residents including stacking and storage of materials. A tree house and den was also present. This area would require removal of some scrub and possibly also small trees as well as the dumped material. It would be surrounded by an appropriate grass sward and grade in to the retained and mature woodland habitat. It is linked to pond 3 by the intervening woodland strip on the north-western side of Firs Wood Close.

Broad-leaved tree	Ornamental shrubs
Broad-leaved tree group	SI Species-poor semi-improved grassland
Broad-leaved tree line	A Amenity grassland
Scrub - continuous	Other eg dry pond
x Scrub - scattered	New grassland
Water body (pond)	New pond

Project: FIRS WOOD CLOSE, NORTHAW PARK

Client: Swing Ltd

Scale: nts
Drawn by: JG
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Drawing: **1178/5 COMPENSATION - NEW POND LOCATIONS**

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