



Species Protection Plan: Bat

Tangy IV Wind Farm

Report Versions

	Name	Position	Date
Prepared by:	Declan Corral	Assistant Ecologist	August 2023
Reviewed by:	Helen Simmons	Associate Ecologist	September 2023

Version and Revision	Document	Date of Issue	Recipient
V1	Species Protection Plan: Bat	September 2023	SSE
V2	Species Protection Plan: Bat	October 2023	SSE
V3	Species Protection Plan: Bat	January 2024	SSE

Contents

REPORT VERSIONS.....	0
CONTENTS.....	0
GLOSSARY	0
1. INTRODUCTION.....	1
2. LEGISLATIVE CONTEXT	1
3. ECOLOGY AND FIELD SIGNS.....	1
4. WORKS WITH POTENTIAL TO IMPACT BATS.....	2
5. MITIGATION.....	2
5.1. OVERVIEW	2
5.2. PRE-CONSTRUCTION.....	3
5.3. DURING CONSTRUCTION.....	3
5.4. ALIGNMENT WITH PROJECT ECOW	4
5.5. POST-CONSTRUCTION.....	4
6. REFERENCES	4
7. FIGURES.....	5

Glossary

The following defines some of the terms used throughout this document:

The Development – All aspects of the Tangy IV Wind Farm construction project, including decommissioning of Tangy I and II Wind Farms.

The Employer – The wind farm developer (i.e., SSE Renewables).

The Contractor/Principal Contractor – The Contractor responsible for Civil Infrastructure and the Principal Contractor as defined in the Construction (Design & Management) Regulations 2015.

Aftercare – The definition of aftercare is considered largely synonymous with Restoration, although relates specifically to the requirement for further management effort as informed by post-restoration monitoring. For example, where seeding has been undertaken although subsequent monitoring has determined failure and requirement for additional effort to achieve restoration targets.

Environmental Impact Assessment Report (EIAR) – The document submitted in support of the wind farm planning application which comprehensively describes the site, baseline environmental conditions, potential impacts of the development and prescribed mitigation. The principles outlined in this document form part of the conditions of the Planning Consent.

Decommissioning – Decommissioning is a process including the partial removal of the wind farm components and infrastructure. Decommissioning may extend to the entire wind farm after its natural operational phase or relate to discrete areas of one or more turbines as part of upgrade / replacement works. Decommissioning works will involve similar tasks / impacts as construction works and will be subject to additional detailed proposals to be submitted to the Planning Authority prior to the commencement of the decommissioning works.

ECow – The Environmental/Ecological Clerk of Works is an independent specialist appointed by the Employer. The ECoW monitors compliance of works with regard to environmental and ecological aspects in accordance with relevant planning conditions, applicable regulations, current best practice and prescribed works methods. The ECoW provides advice to the Employer.

Reinstatement – Reinstatement works undertaken during decommissioning aiming to address any development of landscape and habitats as part of the decommissioning works. Reinstatement is undertaken as soon as practical following the decommissioning works in each area, such as the redressing of road and tracks where applicable, turbine bases (and other areas that may be disturbed as a result of the decommissioning process). Re-seeding (conventional or hydroseeding) may be part of reinstatement measures where redressing proves unsuccessful.

Restoration – Restoration works are generally defined as long-term measures aimed to restore the ecological status (comparable to pre-commencement / baseline) of the development, through species and / or habitat management.

1. Introduction

SSE Renewables plan to repower the existing Tangy Wind Farm, Kintyre, Scotland. The 'Works' to facilitate 'Tangy Wind Farm IV' will include construction of 16 new wind turbines, the decommissioning of 22 existing turbines, reinstatement, aftercare and restoration works.

Tangy Wind Farm IV will be located on land 9 km north-west of Campbeltown, Kintyre, Scotland, hereafter referred to as the "Site", and is shown on a site layout plan produced for the Environmental Impact Assessment (EIA); **Figure 1**. The Site comprises areas of commercial forestry in the north and agricultural grazing in the south, in addition to the existing wind farm. Several small watercourses are present within the Site, many of which have hydrological connectivity to Tangy Loch, located approximately 230 m south-east of the Site at its closest point.

There are no nationally or internationally designated sites within the Site. Tangy Loch and Lussa Loch are part of the Kintyre Goose Roosts Special Protection Area (SPA) and Ramsar Site, both of which are located within 1 km of the Site. Tangy Loch Site of Special Scientific Interest (SSSI) extends across adjacent terrestrial habitat to the Loch directly adjacent to the Site. Lussa Loch SSSI and Tangy Gorse SSSI are within 1 km east and south-west of the Site respectively. None of these designated sites are designated for the presence of bats.

WSP ecologists carried out an ecological walkover survey of the Site and took target notes of any structures and trees with potential to support roosting bats in July 2023. The survey of the Site identified four structures suitable to support roosting bats and several trees that contained potential roost features (PRFs) suitable for use by bats. The location of these structures and trees are shown in **Figure 2**.

This Species Protection Plan (SPP) has been prepared by WSP UK Ltd. (WSP) on behalf of SSE Renewables to ensure the welfare of bats and disturbance/destruction to bats in their roosts (if present) during the Works is avoided or minimised as far as reasonably possible. The SPP will be referred to before and during the works by all personnel on Site, with the intention of ensuring legal compliance to legislation afforded to this species (outlined below).

2. Legislative Context

All species of bats occurring in Scotland are classed as European Protected Species (EPS) under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). There is no change to the protection of European protected species as a result of EU Exit. It is therefore an offence (unless licensed to do so) to deliberately or recklessly:

- kill, injure, capture or harass a bat;
- disturb a bat whilst it is using any structure or place for shelter or protection (roost sites), or in any way that impairs its ability to survive or breed, or significantly affects the local distribution or abundance of the species;
- obstruct access to a roost site, or otherwise deny its use by bats; and to damage or destroy a bat roost, irrespective of whether bats are present (whether or not deliberate or reckless)

3. Ecology and Field Signs

Bats are a group of species of nocturnal flying mammal with nine species believed to be resident in Scotland. Including four widespread species soprano pipistrelle *Pipistrellus pipistrellus*, common pipistrelle *Pipistrellus pygmaeus*, Daubenton's bat *Myotis daubentonii*, brown long-eared bat *Plecotus*

auritus. With five less common species including Leisler's bat *Nyctalus leisleri*, noctule bat *Nyctalus noctula*, Nathusius pipistrelle *Pipistrellus nathusii*, whiskered bat *Myotis mystacinus* and Natterer's bat *Myotis nattereri*.

Bats use a variety of locations for roosting across the year including buildings, trees and caves and can be found foraging for their prey species, namely winged invertebrates including midges and moths, across a variety of habitats such as woodland, grassland and waterbodies. Bats can roost as individuals or in small colonies ranging from 2 - >1000 bats in each roost largely dependent on the species and time of year. The most sensitive period for bats is maternity and hibernation season. Ideally works on or in proximity to known roosts should avoid these periods.

Bats form maternity colonies from May to August. These are made up of female bats and their pups. Here they will rear their pup until it is able to fly and fend for itself normally post August. Female bats will normally only produce one bat pup per year.

From November to March, dependent on the weather, bats may go into torpor (deep sleep where their heart rate and body functions slow down) this time is referred to as the hibernation season. During this period bats rely on a special type of fat to sustain themselves however they may wake throughout this period to drink or feed. Bats who wake due to disturbance are at a greater risk of mortality due to the energy expenditure of waking, the cold temperatures at this time of year and the lack of prey meaning the bat cannot restore the reserves used up.

Bat field signs:

- Droppings/urine staining;
- Scratchings at roost access points;
- Fur;
- Strong odour;
- Associated parasites including bat bugs and flies.

4. Works with Potential to Impact Bats

Works on site will include geotechnical investigations (GI), clear felling of forestry areas (including timber removal), construction phases and existing wind farm decommissioning phases. It is anticipated that Works will require the creation of temporary construction compounds, borrow pits and welfare facilities. The hours of work will be between the hours of 7am and 7pm.

Whilst there will likely be no direct impacts to potential roost sites (**Figure 2**), any works required within 100m of these potential roost sites have potential to disturb bats (if present), damage roosts or kill/injure bats. The ECoW will review works activities and may reduce the disturbance buffer to 30m if no high disturbance works (e.g. pilling, blasting or GI) are proposed.

5. Mitigation

5.1. Overview

All potential roost sites (those illustrated in **Figure 2** and any additional potential roost sites found during the pre-works check) will require confirmatory roost surveys for bats should works be required within 30m of these locations (or 100m for pilling works). All surveys should be undertaken following Bat Conservation Trust (BCT) guidelines (Collins, 2023).

Structures:

Follow-up surveys are required for all structures depending upon the suitability of structure to support bats (Collins, 2023):

- Structures with low suitability require at least one survey be undertaken between May and August;
- Structures with moderate suitability require two surveys to be undertaken between April and September with at least one undertaken between May and August; and
- Structures with high suitability require three surveys to be undertaken between April and September with at least two undertaken between May and August.

Trees:

Follow-up surveys may be required for trees depending on the suitability of assessed potential roost features (PRFs) (Collins, 2023):

- Trees with PRFs that are only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitat do not require further surveys; and
- Trees with PRFs that are suitable for multiple bats and may therefore be used by a maternity colony require three surveys to be undertaken between April and September with at least two undertaken between May and August¹.

It should be noted that the original walkover survey was undertaken prior to changes in BCT guidance so tree PRFs will need to be reclassified during future surveys.

5.2. Pre-Construction

An ecologist/ Ecological Clerk of Works (ECOW) will be appointed to oversee the Works. The appointed ecologist will be of at least 'Capable or Accomplished' level (BCT Level 2) in surveying for and advising mitigation for bats, as per the Chartered Institute of Ecology and Environmental Management (CIEEM) competency framework (CIEEM, 2019). The appointed ecologist will then undertake and oversee the measures detailed below.

Prior to commencement of any works, the following will be undertaken:

- The appointed ecologist will do a pre-construction survey(s) of the Site to search for any additional potential roost sites (specifically within trees as suitable roosting features may have formed between the previous survey effort and pre-works);
- This SPP will be made available to all works personnel, with a hard copy available on Site;
- The appointed ecologist will present the information held within this SPP and any other supporting information to works personnel; and
- Where required suitable 30 m avoidance buffers will be physically marked out on Site by the appointed ecologist, within which no works should take place and no works personnel should enter without prior consent from appointed ecologist.

5.3. During Construction

The following methods will be adhered to during all construction works, to avoid/minimise disturbance impacts on bats and to ensure the welfare of bats active within the general area.

¹ It should be noted that this survey requirement applies to each individual PRF identified and not tree itself.

- A minimum of 30 m exclusion zone is to be maintained from all potential roost sites throughout construction. Pile driving, blasting, GI or other high vibration activities should be avoided within 100m of a potential roost site. Where this is not possible, further survey within the appropriate survey season and following the guidelines will be required to determine the presence/absence of roosting bats and a licence from NatureScot may be required to permit disturbance or destruction of any identified roosts;
- Licenses are not normally granted for works during the bat breeding or hibernation season (May to September and November to March respectively) when they are most sensitive to disturbance. Where roosts are to be destroyed or disturbed for a prolonged period of time compensatory roosting opportunities should be erected;
- Any works associated with a bat licence will follow a separate licenced method statement and be overseen by the licenced ecologist;
-
- No artificial light should directly illuminate any potential roost sites, foraging or commuting habitat (shown in **Figure 2**);
- There will be no direct interference with any potential roost unless further surveys are undertaken and, if a known roost, licenced to do so;
- No works materials will be left within 30 m of any potential roost, nor at a location with potential to block access by bats to/from a roost site and the wider area; and
- Works adjacent to watercourses will comply with best practice guidelines as presented in the Scottish Environment Protection Agency's Guidance for Pollution Prevention (GPP) series (Netregs, undated).

Should a bat be discovered (or suspected) at any time during works, the work must stop immediately, and the appointed ECoW informed. Contact information for the appointed ecologist will be readily available to all personnel and is listed in Table 5-1 below.

Table 5-1 – Contact information for appointed ecologist(s)

Name	Contact number	Email address
Helen Simmons	07393 008681	Helen.simmons@wsp.com
Tracy Kerr	07908 010334	Tracy.Kerr@wsp.com

5.4. Alignment with Project ECoW

It is assumed that the appointed ecologist role will be undertaken by the project ECoW where appropriate, to ensure resource efficiency, and allow a holistic approach to management of environmental/ecological issues on the Site.

5.5. Post-Construction

No post-construction mitigation is anticipated as part of this Development. This will be reviewed throughout the Development by the appointed ecologist.

6. References

CIEEM (2019). Competency Framework [online]. Available at <https://cieem.net/resource/competency-framework/> [Accessed 19/07/2023].

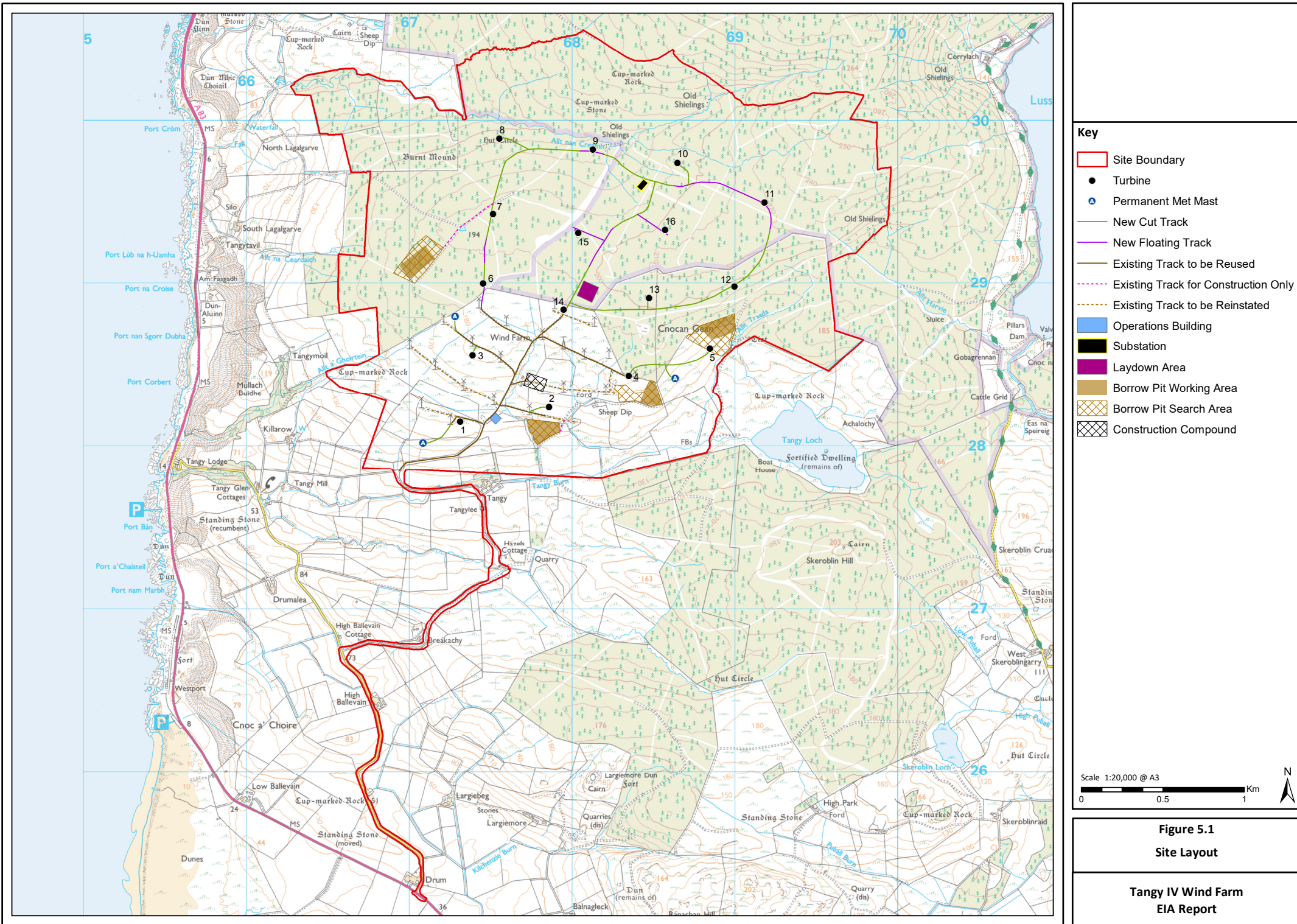
Collins, J. (ed) (2023). Bat Surveys for Professional Ecologist, Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London.

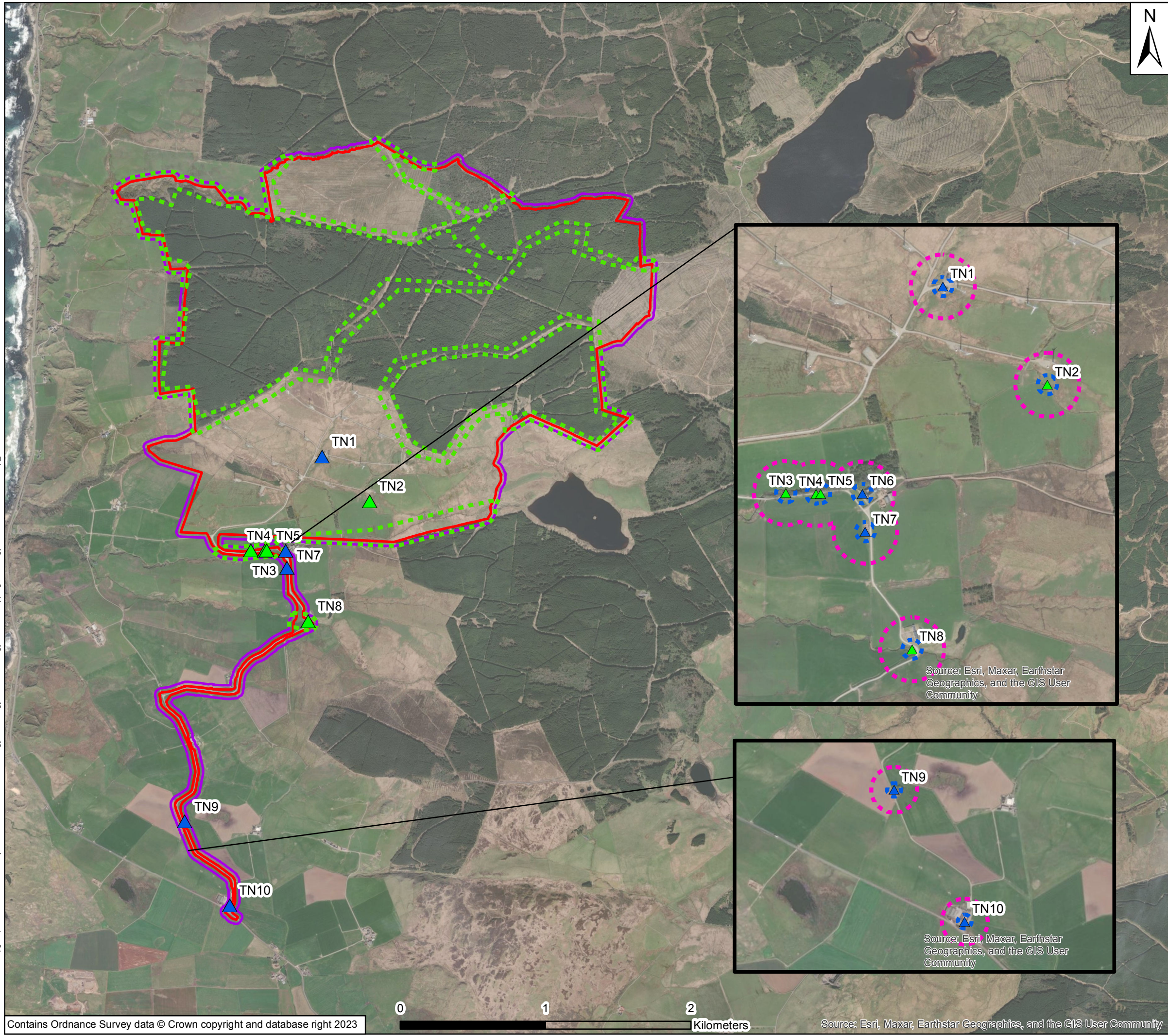
Netregs (undated). Guidance for Pollution Prevention (GPPs) - Full list [online]. Available at: <http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppps-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/> [Accessed 19/07/2023]

7. Figures

Figure 1: Site Layout Plan (produced for the EIA; Figure 5.1)

Figure 2: Bat Protection Plan





- Key**
- Site Boundary
 - Bat Survey Buffer - 30m
 - Foraging and Commuting Habitat
 - Potential Roosting Feature Location
 - Building
 - Tree
 - Potential Roost Feature - 30m Buffer
 - Potential Roost Feature - 100m Buffer



Client: 

Project: Tangy IV Ecology and Ornithology

Title: Bat Protection Plan
Figure 2

Drawing No:	Figure 2	Drawn:	AT
Date:	31/08/2023	Checked:	DC
Scale:	25,265 @ A3	Approved:	HS