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Client: Gunnersbury Estate (2026) CIC

Project: Gunnersbury Park

Report: Ecological Constraints and Opportunities Plan

QUALITY ASSURANCE

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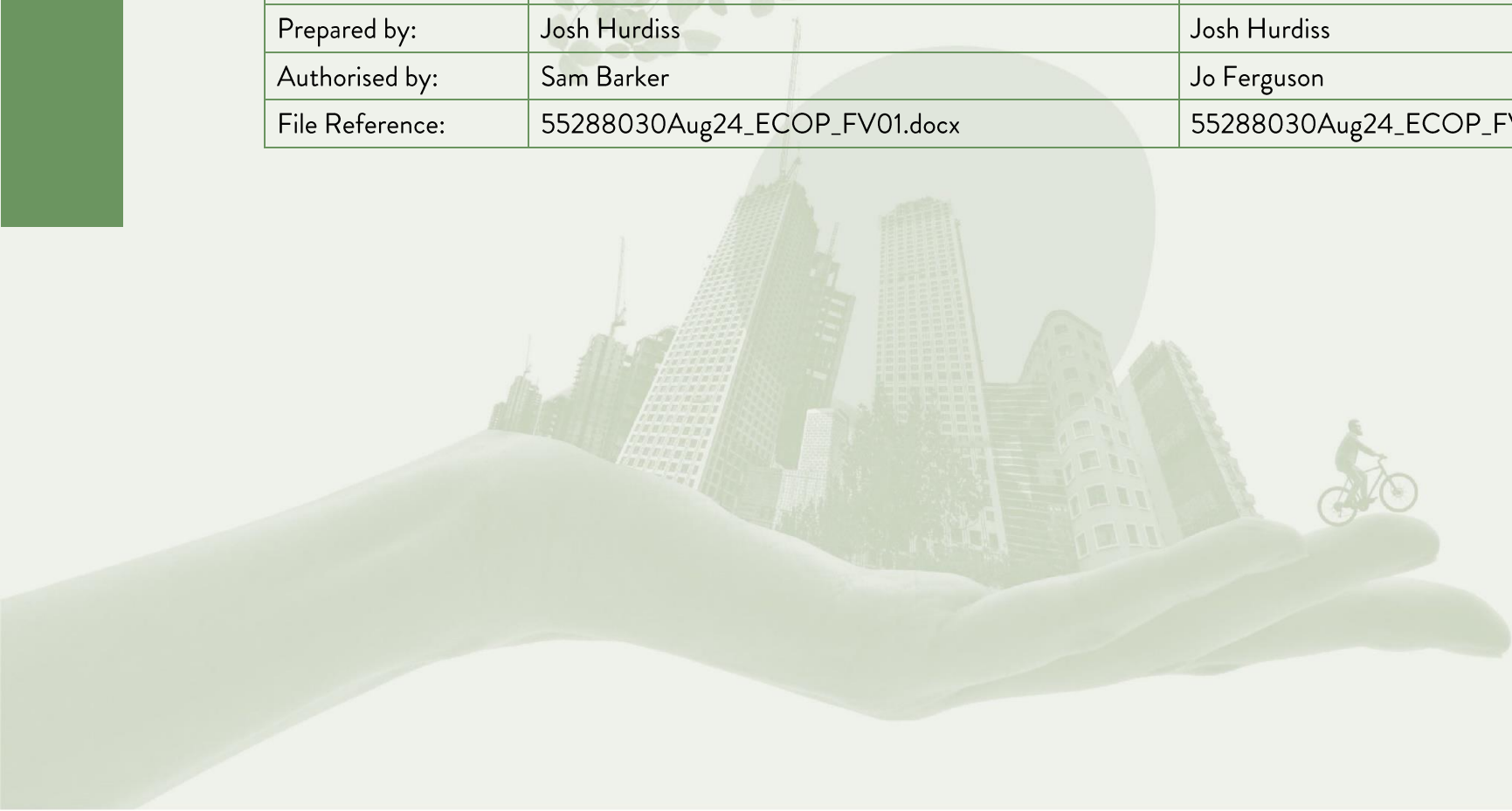

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1.0 INTRODUCTION

Greengage Environmental Ltd (Greengage) was commissioned to produce an Ecological Constraints and Opportunities Plan (ECOP) by Gunnersbury Estate (2026) CIC (hereafter Gunnersbury CIC) for Gunnersbury Park, London Borough of Ealing and London Borough of Hounslow.

This ECOP document will respond to the Learn Ecology ecological appraisal[1] which informs a planning application for temporary music events proposed within the park. This document has been produced in response to concerns a small number of local residents have raised in relation to the potential disturbing impacts these large scale events in the park could be having on wildlife and other environmental damage. This ECOP provides a high level assessment and summary of potential ecological receptors that are present in and around Gunnersbury Park that may be impacted by activities associated with the events. It also makes recommendations on opportunities to enhance habitats on site for the benefit of wildlife and people.

1.1 CONTEXT

Gunnersbury Park, hereafter referred to as 'the Site', will hold ten temporary music festival events between April - September 2024, after hosting a number of these events in previous years. It is understood that a small number of local residents have raised concerns that large scale events occurring at Gunnersbury Park could be disturbing wildlife and causing other environmental damage.

The specific complaint argues that *"Wildlife must be badly affected by the extreme noise levels and light pollution"*[2] and *"we can only imagine what is happening to the protected resident bats and bird life"*[2], yet no scientific evidence has been provided alongside these statements. In addition, the statement *'leave behind compressed, gouged and ecological spoiled land"*[2] is supported by citizen science undertaken by a resident within a Gunnersbury Park Environmental, Social Opinion, Safety and Health Report 2023[3]. However, the scientific rigour within their methodology is lacking disclosure of key pieces of information that would be expected to be included, such as sample repeats and transparency regarding sample locations for the independent soil analysis.

As such, Gunnersbury CIC have requested obtainable scientific information to understand the potential environmental impacts from events. In addition, Gunnersbury CIC and event promoters want to understand what opportunities there are at the Site for positive interventions that could be made for wildlife and people. This will provide Gunnersbury CIC the information required to allow a balanced approach to urban park management for wildlife and people to be undertaken, ensuring that evidenced-based decisions are made in the long term to benefit both and to communicate this more effectively, building on the post event community outreach from 2023[4]. This report could also be provided as supplementary information for the local authority planning officers.

Ecological information used to inform this report has been collected from the Greenspace Information for Greater London (GiGL) data holdings and a review of recent ecological reports, creating a desk study that describes the likely current ecological context. The above desk study alongside professional judgement, using Greengage's previous experience of undertaking impact assessments for large scale events and local knowledge provides the background information that forms the ECOP for the Site. In addition, two site visits to the park in conjunction with the 'Festival Republic' events has allowed for the assessment to be reflective of the current event layout, speaker positioning and lighting plan.

1.2 SITE DESCRIPTION

The area of the Site where the events are held, as outlined within the Learn Ecology Ecological Appraisal[1], extends to approximately 16 hectares (ha) of the total approximate 72 ha area of Gunnersbury Park, approximately 22% of the total park area. The music event is centred on Ordnance Survey (OS) National Grid Reference (OS NGR); TQ 18881 78782, OS co-ordinates 518881, 178782 (see Appendix A).

The Site is located west of London within the area of Gunnersbury and is managed between the London Borough of Ealing and London Borough of Hounslow. The Site is a Grade II* parkland and is a Site of Importance for Nature Conservation (SINC), containing Wood Pasture & Parkland priority habitat, with the edges supporting Deciduous Woodland priority habitat[1].

As outlined with the Ecological Appraisal[1], the habitats present within the event boundary are modified grassland, other neutral grassland, ditch, artificial unvegetated unsealed surface, developed land; sealed surface, and individual trees, see Appendix A for Site Map. This Site Map outlines the proposed site boundary for the upcoming temporary music event *'Waterworks'* which is proposed to take place primarily on the Old Cricket Pitches and be contained within the footpaths outside of the main area[5], see Appendix B for indicative event site plan. Outside the music events boundary, the park is occupied by hardstanding and artificial surfaces which are primarily occupied by the Gunnersbury Park Sports Hub, consisting of an indoor sport facility, two tennis courts and two artificial sports pitches, all four equipped with exterior flood lighting, two cricket pitches, a minigolf putting green, and accompanying car parking. The park also contains the existing structures of Gunnersbury Park Museum, Capel Manor College, Orangery, and Public Toilets, all with exterior security lighting and multiple other smaller and derelict structures present around the park. Exterior lighting on light sensors and timers are present up the main driveway to the museum, which are active during the night throughout the year.

Further detailed within the Ecological Appraisal report[1], *'the site in an urban context and lacks direct connectivity with other green spaces'*. There are green spaces and corridors to the north and west of the site that, while lacking direct green connections to the park, still offer potential opportunities for wildlife, with examples including but not limited to South Ealing Cemetery, Ascott Allotments, and the Piccadilly and District Lines in Ealing (SINC). However, the

immediate area surrounding the Site is primarily commercial and residential, with the Vantage London, Dell Technologies, and Apt office buildings and M4 motorway located immediately to the south of the Site, and the A406 located immediately to the east of the Site. Residential houses back immediately onto the Site along the northern and western boundaries, with Gunnersbury Cemetery immediately to the southeast of the Site. The Brentford Football Club Gtech Community Stadium is located 175m south of the Site.

Urban public green spaces in the surrounding area of the Site (but not with direct connectivity due to urban infrastructure such as roads and buildings) includes Carville Hall Park North located approximate 15m west of the Site, Barons Pond (SINC) located approximately 20m north of the Site, Actonians Sports Club located approximately 70m northeast of the Site, South Ealing Cemetery (SINC) located approximately 125m west of the Site, Carville Hall Park South located approximate 130m southwest of the Site, Popesfield Sports Ground located approximately 200m north of the Site, Carbery Avenue Allotments (SINC) located approximately 320m north of the Site, Boddington Gardens Sports located approximately 380m northeast of the Site, and Ascott Allotments (SINC) located approximately 435m north of the Site. The closest Statutory Site being Syon Park Site of Special Scientific Interest (SSSI) located approximately 1.5 km southwest of the Site, with two small Local Nature Reserves (LNR) being situated to the east and west, the closest being Gunnersbury Triangle located approximately 1km east of the Site. Including Gunnersbury Park, seven SINC were identified within the immediate area.

2.0 METHODOLOGY

This ECOP has been produced using previous survey efforts in the form of an Ecological Appraisal[1] undertaken for the Site in May 2024 by Learn Ecology, and supplemented with ecological data returned by GiGL and two site visits undertaken to gain greater understanding of the context in which these temporary music events are taking place regarding local ecological receptors.

A data request was submitted to GiGL to obtain protected species records from the past 10 years recorded within the boundary of the Site and up to 1km from the centroid of the Site. A review of the recent ecological appraisal was also conducted, with these outlined within Section 4.2, in addition to a review of OS mapping, aerial imagery, and Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) website[6] to source additional information on protected sites and protected species licences within 1km of the Site.

The desk-based assessment has been produced to identify the potential value for notable, rare, and protected species at the Site, providing a high-level assessment and summary of potential ecological receptors that are present in and around Gunnersbury Park that may be impacted by activities associated with the events.

Two site visits to Gunnersbury Park were undertaken during events on the 9th of August 2024 and 18th of August 2024 to gain a greater understanding of the context in which these temporary music events are taking place regarding local ecological receptors. This allowed for an understanding of the proximity these temporary events occurred to more ecologically important habitats within the park and allowed for an overview assessment of the current event layout, speaker positioning and lighting plan, providing wider Site context. These site visits were in no way an ecological survey or assessment, with no information gathered relating to habitat types or protected species.

The number of events that have taken place and are still proposed to take place in Gunnersbury Park in 2024 have been compiled, with specific dates and times of each event recorded, with all the data referenced readily available from online sources, Table 3.1. These have been used to ascertain the proportion of time the park is hosting music events between April 1st 2024 to September 30th 2024. This period has been used as it covers the peak times for both the bat activity and bird nesting season. Although the activity periods for both bats and nesting birds have the potential to extend outside this period, it is weather dependent and as such, this time period has been utilised for both calculations.

Information in relation to the temporary events at Gunnersbury Park has been provided by Gunnersbury CIC, including premises licence, approximate average yearly park attendance, approximate temporary music event attendance, lighting plans, and event build/break working hours. Relevant information that has been provided has been used to supplement this ECOP assessment.

The survey boundary and existing site is illustrated in Appendix A.

2.1 LIMITATIONS

This report is for scoping purposes only and does not include site specific survey data for either habitat types or protected species. The Ecological Appraisal carried out May 2024 only covered the areas of habitat within the event red line boundary, not the complete Site, so provides a 'snapshot' of habitats present on the Site. As such recommendations within this scoping report may change, as further data and information is gathered.

2.2 COMPETENCIES

Sam Barker, Senior, has an undergraduate degree in Environmental Science (BSc Hons), holds a Natural England Great Crested Newt Licence and is an Associate member of CIEEM. Sam has over six years' experience of undertaking and managing a range of ecological surveys and assessments.

Jo Ferguson, Principal, has a BSc (Hons) in Zoology and is a full member of CIEEM. She is a member of the CIRIA Biodiversity Community of Practice steering group. She has over 20 years of ecological survey and assessment experience in the voluntary, charity and professional sectors, from land management to ecological consultancy, both in the UK and abroad. Jo is licenced to survey bats in England and has held bat mitigation licences.

Josh Hurdiss, Graduate, has a BSc (Hons) in Environmental Science with Employment Experience, gaining valuable expertise in ecological surveying and reporting through a year-long placement. His experience includes Preliminary Ecological Appraisals, bat activity and emergence, badger, great crested newts, reptile, water vole and nesting birds; and has assisted in multiple Biodiversity Net Gain assessments.

Trevor Curson, Operations Executive, holds a BTech, MIEnvSc, and is a Charted Environmentalist. He has over 40 years broad-based experience as an environmental professional in the UK and overseas. In 35 years in consultancy he has been involved in a very wide range of built development projects in the UK and overseas, including major regeneration and infrastructure schemes, waste disposal and waste management, airports, new railway and road proposals, and large-scale industrial cities.

This report was written by Josh Hurdiss with assistance from Sam Barker and Jo Ferguson, reviewed by Sam Barker and verified by Jo Ferguson who confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;

- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased and exaggerated statements.

3.0 GUNNERSBURY PARK 2024 EVENTS

Information in relation to the temporary music events proposed to take place during 2024 has been provided by Gunnersbury CIC. Specific information in relation to the Premises Licence permitting the hosting of these events within Gunnersbury Park has been included to provide context surrounding the hosting of these temporary music events and is not an element of evaluation in this ECOP assessment.

Number of Events

- There shall be no restriction on the number or duration of Small Events permitted under the Licence.
- There shall be no more than 20 Medium Events over a period of 40 days permitted by this Licence per calendar year (not to include and Large or Special Events) with no limit to the duration of any event nor any requirement that the event takes place on consecutive days.
- In addition, there shall be no more than 20 Large Events that do not include any performances of live or recorded music not to exceed a total of 40 days permitted by this Licence per calendar year (not to include Large events including live or recorded music and/or Special Events) with no limit to the duration of any particular event nor any requirement that the event takes place on consecutive days.
- In addition, Large Events that include live or recorded music shall only be permitted on a maximum of 14 days per calendar year (excluding days permitted for Special Events).
- In addition, Special Events shall be restricted to a maximum of four events each calendar year subject to a maximum of 14 days each calendar year, none to exceed 8 days within a 14 day period (window). In addition, a Special Event shall be permitted on New Year's Eve into New Year's Day.

Scale of Events

Events will be categorised based on the number of people that will be onsite at any one time. As follows:

- Small Events: No more than 499 people on site at any one time.
- Medium Events: Between 500 and 5,000 people on site at any one time.
- Large Events: Between 5,001 and 10,000 people on site at any one time.
- Special Events: More than 10,000 people on site at any one time.

As outlined within Table 3.1 below, the total number of days in which temporary music events are proposed to take place between April to September 2024 at Gunnersbury Park is 10. Therefore, during the period between April 1st 2024 and September 30th 2024, approximately 5.5% of the total days will be utilised for temporary music events within the Site.

Table 3.1 Temporary events taken/taking place in Gunnersbury Park between April to September 2024

Name of event	Date of event	Timing of event (clear of public)
Soho House Festival[7]	4th July 2024	14:00 to 22:30 (23:00)
DLT Presents: The Recipe[8]	6th July 2024	14:00 to 22:30 (23:00)
Festival Republic - Fisher[9]	9th August 2024	14:00 to 22:30 (23:00)
Festival Republic - Tom Grennan[9]	10th August 2024	14:00 to 22:30 (23:00)
Festival Republic - KoRn[10]	11th August 2024	14:00 to 22:30 (23:00)
Festival Republic - Peggy Gou[9]	17th August 2024	13:00 to 22:30 (23:00)
Festival Republic - P J Harvey[11]	18th August 2024	15:00 to 22:30 (23:00)
Before Midnight Festival[12]	13th September 2024	12:00 to 22:30 (23:00)
Waterworks Festival[12]	14th September 2024	12:00 to 22:30 (23:00)
DnB Allstars Festival[12]	15th September 2024	12:00 to 22:30 (23:00)

All temporary music events are proposed to finish live music no later than 22:30, so assuming music is running continuously between the start and latest end time, the maximum number of hours music could potentially be playing during this period is a total of 91 hours. Therefore, during the period between April 1st 2024 and September 30th 2024, approximately a maximum of 2.1% of total hours will be occupied by noise levels above average surrounding baseline. In reality, music events require change over time for artists and therefore even accounting for sound checks, the percentage of time occupied by music at the Site will be below 2% of the total hours available between 1st April and 30th September.

All temporary music events are proposed to be cleared of the public by no later than 23:00, it is assumed that the amount of time which the most intense lighting directly emitted by the temporary music events within the Site which is over and above the general light pollution from the surrounding urbanised

area will be a total of 96 hours. Therefore, during the period between April 1st 2024 and September 30th 2024, a maximum of 2.2% of total hours will be occupied by light emission levels potentially over and above average surrounding baseline levels.

As outlined in Table 3.2 below, the build and break of the temporary events occurs between the working hours of 8am to 8pm, therefore any works relating to the events taking place in July and August will not require external lighting during these working hours. Events taking place during the month of September are likely to require external lighting if works do occur up to 8pm due to the shortening of the days. These hours have not been included within the calculations due to the limited time additional external lighting would potentially be active for workers, with the majority of working hours outside the nocturnal activity period.

In addition, the overlap of nocturnal hunting time for bats and when the event is active represents a low proportion of available foraging time impacted throughout the event period, this is because as the sunset time gets earlier, the nights get longer, with more time of darkness available.

Table 3.2 Time of sunset in Gunnersbury on dates of temporary music events

Name of event	Date of event	Time of sunset
Soho House Festival	4th July 2024	21:20
DLT Presents: The Recipe	6th July 2024	21:19
Festival Republic - Fisher	9th August 2024	20:35
Festival Republic - Tom Grennan	10th August 2024	20:33
Festival Republic - KoR	11th August 2024	20:31
Festival Republic - Peggy Gou	17th August 2024	20:19
Festival Republic - P J Harvey	18th August 2024	20:17
Before Midnight Festival	13th September 2024	19:19
Waterworks Festival	14th September 2024	19:17
DnB Allstars Festival	15th September 2024	19:15

Festoon lighting associated with access points and walkways for the general public to be able to leave and traverse the Site safety are kept on for 24 hours whilst these temporary events are taking place, primarily for security reasons. In addition, low-level arena lighting also remains on overnight during the event and during build and break periods for site security reasons. Although this lighting is likely to increase levels of light within the site boundary during this period, as described above it is only temporary and active for a small proportion of the year and time period investigated.

Gunnersbury CIC provided information that estimated Gunnersbury Park receives circa one million annual visitors, averaging approximately 3,000 visitors daily. Although these events do cause a substantial increase in daily visitor numbers above the average during events, these increases are isolated to specific short periods and only occur for 10 days across a calendar year. The proposed approximate attendance for each event is outlined in Table 3.3 below:

Table 3.3 Approximate attendance for each scheduled temporary music event in 2024

Name of event	Approximate attendance
Soho House Festival	8,200
DLT Presents: The Recipe	6,000
Festival Republic - Fisher	14,000
Festival Republic - Tom Grennan	17,000
Festival Republic - KoRn	25,000
Festival Republic - Peggy Gou	15,000
Festival Republic - P J Harvey	11,000
Before Midnight Festival	10,000
Waterworks Festival	17,000
DnB Allstars Festival	20,000

4.0 ECOLOGICAL CONSTRAINTS AND OPPORTUNITIES

4.1 SUMMARY OF EXISTING REPORTS

The following existing ecological reports have been reviewed as apart of this ECOP and relied upon:

- Learn Ecology Ecological Appraisal, Gunnersbury Park London, W3 8LQ, dated 17th May 2024[1]
- Oakshire Environmental Soil Quality & Contamination Test, dated 26th January 2024[13]
- Greengage Baseline Ecological Appraisal, Victoria Park, dated 23rd February 2024[14]

4.2 DESK STUDY RESULTS

A review of readily available ecological information and other relevant environmental databases (included Defra's MAGIC website[6]) was undertaken for the site and its vicinity. The Ecological Appraisal[1] identified two European Protected Species Licences (EPSLs) using MAGIC within 2km of the site, both of which were outside the event boundary in the suburban residential environment. One pertained to soprano pipistrelle *Pipistrellus pygmaeus* and the other pertained to brown-long eared bats *Plecotus auritus,* common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle. Both licences have expired. The closest of these licences were located approximately 1.66 km south-west of the Site boundary and pertained to the damage of a brown-long eared bat, common pipistrelle, and soprano pipistrelle breeding and resting site.

The Ecological Appraisal[1] also undertook a preliminary roost assessment survey on the trees and buildings within the Site boundary. No further surveys or mitigation were recommended.

In addition, the biological records search from GiGL was reviewed to identify the presence of records for notable and protected species, with only the records recorded within the past 10 years being considered and reported on, summarised in Table 4.1 below. As many of the species record locations were reported using a six figure grid reference instead of a more accurate eight or ten figure grid reference, the Gunnersbury Park boundary has been used to determine approximate distance. Any species records identified as confidential by GiGL have not had their location disclosed for persecution purposes and as such have been reported as N/A in this report. This provided the overall ecological context for the site, to better inform this ECOP.

Table 4.1 Desk study records results.

Common Name	Latin Name	Approximate distance of nearest record	Date of most recent record	Ecological conservation status
Terrestrial Mammals (bats)				
Serotine	*Eptesicus serotinus*	Within park boundary	01/07/2015	WCA5/9.4b, WCA5/9.4c
Leisler's Bat	*Nyctalus leisleri*	Within park boundary	01/07/2015	WCA5/9.4b, WCA5/9.4c
Noctule Bat	*Nyctalus noctula*	Within park boundary	01/06/2022	WCA5/9.4b, WCA5/9.4c
Common Pipistrelle	*Pipistrellus pipistrellus*	Within park boundary	01/06/2022	WCA5/9.4b, WCA5/9.4c
Soprano Pipistrelle	*Pipistrellus pygmaeus*	Within park boundary	01/06/2022	WCA5/9.4b, WCA5/9.4c
Myotis Bat species	*Myotis*	575m west	01/06/2022	WCA5/9.4b, WCA5/9.4c
Birds				
Fieldfare	*Turdus pilaris*	Within park boundary	04/11/2021	Sch1 / BOCC Red
Kingfisher	*Alcedo atthis*	Within park boundary	29/11/2021	Sch1 / BOCC Green
Red Kite	*Milvus milvus*	N/A	17/01/2021	Sch1 / BOCC Green
Swift	*Apus apus*	Within park boundary	26/05/2023	BOCC Red
Pochard	*Aythya ferina*	Within park boundary	30/11/2021	BOCC Red
Greenfinch	*Chloris chloris*	Within park boundary	17/05/2021	BOCC Red
Herring Gull	*Larus argentatus*	Within park boundary	29/11/2021	BOCC Red
Mistle Thrush	*Turdus viscivorus*	Within park boundary	29/04/2021	BOCC Red
House Sparrow	*Passer domesticus*	Within park boundary	31/03/2019	BOCC Red
Starling	*Sturnus vulgaris*	Within park boundary	29/11/2021	BOCC Red
Dunnock	*Prunella modularis*	Within park boundary	29/11/2021	BOCC Amber

Common Name	Latin Name	Approximate distance of nearest record	Date of most recent record	Ecological conservation status
Gadwall	*Mareca strepera*	Within park boundary	26/12/2014	BOCC Amber
Song Thrush	*Turdus philomelos*	Within park boundary	09/10/2021	BOCC Amber
Sand Martin	*Riparia riparia*	Within park boundary	06/06/2020	BOCC Green
Peregrine Falcon	*Falco peregrinus*	N/A	08/09/2021	BOCC Green
Little Egret	*Egretta garzetta*	N/A	01/04/2017	BOCC Green
Grey Wagtail	*Motacilla cinerea*	Within park boundary	20/11/2021	BOCC Not assessed
Redwing	*Turdus iliacus*	Within park boundary	20/11/2021	BOCC Not assessed
Baltic Gull	*Larus fuscus fuscus*	Within park boundary	11/10/2021	BOCC Not assessed
Yellow Wagtail	*Motacilla flava*	415m east	22/04/2021	BOCC Red
Tawny Owl	*Strix aluco*	370m west	17/06/2021	BOCC Amber
Amphibians				
Common Toad	*Bufo bufo*	Within park boundary	08/07/2022	Sect. 41
Common Frog	*Rana temporaria*	Within park boundary	08/07/2022	HSD5
Reptiles				
Slow-worm	*Anguis fragilis*	420m north	27/05/2024	WCA Sch5 / Sec9.1k/l, Sect. 41
Terrestrial Mammals (excl. bats)				
European Hedgehog	*Erinaceus europaeus*	Within park boundary	08/06/2023	Sect. 41
Designated Flowing Plants				
Bluebell	*Hyacinthoides non-scripta*	Within park boundary	20/04/2024	W&CA Sch8
Box	*Buxus sempervirens*	Within park boundary	03/11/2020	Nationally Rare

Common Name	Latin Name	Approximate distance of nearest record	Date of most recent record	Ecological conservation status
Annual Beard-grass	*Polypogon monspeliensis*	Within park boundary	16/06/2024	Nationally Scarce
Large-leaved Lime	*Tilia platyphyllos*	Within park boundary	27/09/2023	Nationally Scarce
Broad Leaved Lime var. Rubra	*Tilia platyphyllos 'Rubra'*	Within park boundary	29/10/2020	Nationally Scarce
Jersey Cudweed	*Gnaphalium luteoalbum*	430m south	22/06/2023	W&CA Sch8
Little-robin	*Geranium purpureum*	445m south	25/05/2023	Nationally Rare
Welsh Poppy	*Meconopsis cambrica*	210m east	06/11/2021	Nationally Scarce
Four-leaved Allseed	*Polycarpon tetraphyllum*	490m south	11/06/2024	Nationally Rare
Invertebrates - Moths				
Cinnabar	*Tyria jacobaeae*	Within park boundary	02/08/2023	Sect. 41
Jersey Tiger	*Euplagia quadripunctaria*	70m west	12/07/2023	HSD5np

4.3 CONSTRAINTS AND OPPORTUNITIES

Findings of the desk-based survey and relevant research, as well as potential enhancement recommendations are summarised in Table 4.2 below.

It is assessed that further mitigation and/or surveys are not required. This is due to the very low percentage of time these temporary events will be present, the small area these events will occupy, approximately 22% of the total park area, and results from habitat and species surveys carried out in the Ecological Appraisal.

There is little opportunity to move the event onto large less desirable habitats such as the large area of modified grassland occupying the western side of the park due to access being required for the sports facilities, pitches and public access to outdoor space. Therefore, a balanced approach needs to be undertaken when considering the potential impacts on both wildlife and people.

Table 4.2 Results and Evaluation of Ecological Constraints and Opportunities at the Site

Ecological Receptor	CPRE/Resident concern	Research	Conclusion	Communications piece
Bats	Two specific concerns relating to foraging and commuting bats have been quoted by CPRE, "wildlife must be badly affected by the extreme noise levels and light pollution"[1] "we can only imagine what is happening to the protected resident bats"[1]	Research shows that in rural areas there is up to a 50% reduction in bat activity due to loud music. However, Gunnersbury Park is situated in a highly urban park that is exposed to already likely high levels of anthropogenic noise. It has been shown in Section 3 of this report that between April and September (the times of year that bat activity is highest), that the maximum amount of time where noise levels would be above baseline levels is 2.1% of the total hours, and even lower when considered across a 12 month period. In the Greengage study looking at impacts of fireworks at Battersea Park, there was a reduction in levels pre-fireworks and post-fireworks, however, there were to many variables such as natural seasonal activity reduction to be able to conclude that the reduction was caused by the fireworks. In a study undertaken by Greengage at	It is clear that festivals are likely to cause temporary shifts in bat activity, however, research from similar urban parks have identified that activity levels recover quickly. Given that approximately only 5% of available days and 2% of available hours during the bird nesting and bat activity season are given to events in Gunnersbury, many of which are in addition outside nocturnal activity time for bats during the longest days of the year, it is likely this represents a temporary low level of impact on bat activity. Also, any bats that are found within the Park will already have exposure to elevated levels of artificial light and noise from the surrounding highly urban environment. These are likely to be species of bat more adapted to highly urban settings.	Between 1st April 2024 and 30th September 2024, the period that bat activity is highest in the year, events at Gunnersbury Park are likely to elevate noise levels above baseline levels for 2.1% of the total hours in this period. During this same period, increase in background levels of artificial lighting at the site, will occur on approximately 5.5% of the total available days. This represents a temporary low level of impact on highly urban species present in the park. However, we at CIC are committed to contribute positively in terms of creating a better quality green space for nature and people and will be making enhancements in the Park in line with ecological

Ecological Receptor	CPRE/Resident concern	Research	Conclusion	Communications piece
		Victoria Park that looked at impacts of the All Points East festival, it was identified that over the weekends that the festival was taking place bat activity levels fell within the festival site, however, activity levels recovered during monitoring in September. However, during August quieter areas of the park recorded higher levels of activity, whether this was a temporary movement of bats that would use the festival site to peripheries of the Park was not possible to determine.		advice we have sought for this purpose.
Nesting Birds	Two specific concerns relating to nesting birds have been quoted by CPRE, "wildlife must be badly affected by the extreme noise levels and light pollution"[1]	Species that do utilise the park are already exposed to noise and light pollution throughout the bird nesting season. Research currently being conducted by the British Trust for Ornithology (BTO) has linked recent blackbird population declines, especially affecting London populations since 2020, to the appearance of the Usutu virus, a new mosquito-borne virus in the UK which is	Many factors negatively influence nesting bird populations on large and small scales, in rural, suburban and urban areas. This does not conclude that potential impacts on nesting birds resulting from the temporary music events are not occurring, but the limited time these temporary events occur is likely to cause low level impacts on a temporary basis.	We are aware of many factors that could negatively impact bird populations in the park, these include factors relating to climate change, general public access to the park, especially from dog walkers that allow dogs off the lead. Given that the events take up 5% of the total number of days (and not the full hours within those days) within

Ecological Receptor	CPRE/Resident concern	Research	Conclusion	Communications piece
	"we can only imagine what is happening to the protected resident bats"[1]	often fatal to blackbirds. Findings have linked its spread to climate change, with on-going research being currently undertaken to better understand disease transmission. In addition, disturbance to birds also occurs outside of these temporary events, with incidences of dogs disturbing swan populations. Mute swans usually have 1 brood a season with eggs laid between March - May and an average incubation of 44 days. Given these dates, it is likely that any mute swans nesting at Gunnersbury will have been completed prior to the first 2024 events. However, Mute swans do move short distances from breeding territories to form winter flocks, the swans at Gunnersbury therefore could be a winter flock, which would correspond with notable absence during summer months.		the nesting season, it is considered the events are likely to cause a minimal amount of increased disturbance over a very short period of time. However, we at CIC are committed to contribute positively in terms of creating a better quality green space for nature and people and will be making enhancements in the Park in line with ecological advice we have sought for this purpose.
Invertebrates	"wildlife must be badly affected by the extreme noise	Certain flying invertebrates are attracted to lights, although this can have the advantage of congregating an easy food	Night flying invertebrates are attracted to light sources, although there is not a direct impact on these	We acknowledge that events bring additional light pollution with them, however, the events

Ecological Receptor	CPRE/Resident concern	Research	Conclusion	Communications piece
	levels and light pollution"[1]	source for some bat species this also draws in insects from darker areas of surrounding habitat. As many bat species avoid artificial lighting they are therefore less able to forage in highly lit environments, impacting upon individual survival rates and ability to successfully breed, posing as a threat to their populations. There is likely already a relatively high artificial light levels in the surrounding area due to it's highly urban location however these will increase over a temporary and short timescale, up to 5% of total days during the bat activity season with the majority of this work being undertaken in the daytime due to work restriction times to consider residents.	there could be a detrimental impact on the species that forage on these species, particularly bats. Also any bats that are likely to be found within the Park are those that will already have exposure to elevated levels of artificial light and noise from the surrounding highly urban environment and be species more adaptive to highly urban settings.	at Gunnersbury constitute 5% of all days within the year that bat activity is likely to be highest (foraging for invertebrate species), with the majority of this work being undertaken in the daytime due to work restriction times to consider impacts on residents. This is likely to result in an overall small-scale impact on a temporary basis. However, we at CIC are committed to contribute positively in terms of creating a better quality green space for nature and people and will be making enhancements in the Park in line with ecological advice we have sought for this purpose.
Hedgehog	wildlife must be badly affected by the extreme noise	Hedgehogs are a declining mammal species in both urban and rural environments, with habitat loss being the biggest cause of this decline. Being	Hedgehogs are likely to use the woody hedgerow edges of the park at the peripheries of the events area, where denser vegetation is present as	We are aware that the key impact of the decline in hedgehog populations is the loss of suitable habitat and

Ecological Receptor	CPRE/Resident concern	Research	Conclusion	Communications piece
	levels and light pollution"[1]	nocturnal, hedgehogs using the park are likely to be disturbed by higher than average light and noise on those few days that events are taking place. However, there is already likely high levels of artificial light and noise due to the urban nature of the park. With the majority of build and break work being undertaken in the daytime due to work restriction times, it is unlikely that this would cause any additional disturbance.	this provides the most amount of protection from predators and natural disturbance. Planting to thicken green corridors and these edges of the park would enhance the desirability and accessibility of the Site for hedgehogs. Tere is the opportunity for Gunnersbury CIC to engage with local residents to explore the potential for hedgehog highways and setting up citizen science monitoring schemes for this species, to connect people with nature.	connections linking areas of remaining suitable habitats. We understand the impacts of artificial light and noise on particularly nocturnal species however, the events at Gunnersbury constitute 5% of all days within the year that hedgehog activity is likely to be highest, with the majority of this work being undertaken in the daytime due to work restriction times to consider impacts on residents. This is likely to result in an overall small scale impact on a temporary basis. However, we at CIC are committed to contribute positively in terms of creating a better quality green space for nature and people and will be making enhancements in the Park in line with ecological advice we have sought for this purpose.

Ecological Receptor	CPRE/Resident concern	Research	Conclusion	Communications piece
Plants	"leave behind compressed, gouged and ecological spoiled land"[1] In addition CPRE quote "damage done to the Park grounds (the old Cricket Pitch now has a PH level that makes parts of it uninhabitable by Flora)"[2]	It is known that protected plant species are present within Gunnersbury Park, this includes native English bluebell. Bluebells are most susceptible to trampling and picking, which prematurely halts the growth and setting of new seed. Footfall and infrastructure is likely to have some compaction impacts on soils. However, contamination sampling of the cricket pitch and other fields by Oakshire Environmental identified that the soils were uncontaminated, the pH was identified as being acidic ranging between 5.3 - 6.6 across samples, not as acidic as had been suggested. Soil contamination was examined within the Greengage study of impacts of fireworks at Battersea Park, soil pH influences the availability of nutrients to plants, with macro-nutrients more readily available in neutral levels (pH 6.5 - 8.0) and micronutrients more available in slightly acidic soils (pH 5.0-7.0). Low pH is considered most likely to be linked to underlying bedrock. Without knowing	Bluebells and other protected flora are susceptible to being damaged and destroyed through trampling and picking. It is important that the locations of these plants are identified to allow for appropriate protection measures to be put in place. Following identification of the locations, measures to ensure that the ground conditions surrounding these are enhanced to encourage spread and therefore increase in vital areas that are suitable for populations to spread into is recommended. The sports, cricket pitches and areas where the events are taking place where there is short modified grassland are likely unsuitable to support protected and notable plant species as these are areas that are sown with hard waring grass seed mixtures that usually comprise 2-3 species and are mown very short which inhibits the ability for other plants to colonise.	Trampling causing damage to protected species is a concern for us with the park. We are therefore committed to undertaking further surveys to identify and locate all areas of the park that support our protected and endangered plants, which are likely to be areas that currently receive less footfall. We at CIC are committed to contribute positively in terms of creating a better quality green space for nature and people and will be making enhancements in the Park in line with ecological advice we have sought for this purpose.

Ecological Receptor	CPRE/Resident concern	Research	Conclusion	Communications piece
		where protected and endangered plants are located it is difficult to know whether the soil conditions are reducing the potential for plants to colonise new areas. However, the sports and cricket pitches are likely unsuitable to support protected and notable plant species as these are areas that are sown with hard-wearing grass seed mixtures that usually comprise 2-3 species and are mown very short which inhibits the ability for other plants to colonise.		
Soil contamination	"leave behind compressed, gouged and ecological spoiled land"[1] In addition CPRE quote "damage done to the Park grounds (the old Cricket Pitch now has a PH level that makes parts of it	Footfall and infrastructure are likely to have some compaction impacts on soils. However, contamination sampling of the cricket pitch and other fields by Oakshire Environmental identified that the soils were uncontaminated, the pH was identified as being acidic ranging between 5.3 - 6.6 across samples, not as acidic as had been suggested. Soil contamination was examined within the Greengage study of impacts of fireworks at Battersea Park, soil pH	It is acknowledged that the pH of the soils are at the acidic end of the spectrum, however, there is no link between this acidity and compaction. The evidence points to compaction more frequently occurring on acidic soils rather than compaction leading to acidic soils. Although acidic, the levels are not so low as to be considered to reduce all plant growth, given the grassland is predominately comprised of fast growing species, it is	We acknowledge that the soils of the park are slightly acidic, however, there is no link between the events and the pH of the soils. Specific testing has proven that the soils are uncontaminated, and it is likely that the acidity is more due to the underlying bedrock.

Ecological Receptor	CPRE/Resident concern	Research	Conclusion	Communications piece
	uninhabitable by Flora)"[2]	influences the availability of nutrients to plants, with macro-nutrients more readily available in neutral levels (pH 6.5 - 8.0) and micronutrients more available in slightly acidic soils (pH 5.0-7.0). Low pH is considered most likely to be linked to underlying bedrock.	likely that areas of bare ground would recover to grassland shortly after the events concluded.	
Designated Sites	No specific comment	Gunnersbury Park is poorly connected to ecologically designated sites, the M4 corridor to the south likely acts as a significant barrier for dispersal of most animals and there are few green corridors between Gunnersbury and other areas of open space that afford protection for animals to move through. Designated sites form networks of high quality ecological habitats and support some of the rarest and/or most endangered species not just nationally but internationally. Some sites such as Richmond Park SAC, 4 km south of Gunnersbury, are designated for the importance that the veteran and ancient trees have as habitat for stag beetle. Stag	Although Gunnersbury is currently poorly connected to ecologically important sites, it is important that parks and open spaces provide habitats and the opportunity for mobile urban species to colonise and form populations outside of specifically designated zones, to ensure the long-term viability and survivability of a specific species and to connect people with nature. Given that designated sites in West London are often cited for their importance to stag beetles providing dead wood habitat that stag beetle larvae rely on such as log piles should be considered alongside signage.	We acknowledge that we are isolated from ecologically designated sites, however we want to ensure that Gunnersbury Park strives to provide a home to endangered species such as stag beetle and aims to connect people with these rare and fascinating species. Therefore, the CIC is committed to the provision of high quality beetle loggeries that will allow all sorts of deadwood specialist beetles the opportunity to be supported at the Park.

Ecological Receptor	CPRE/Resident concern	Research	Conclusion	Communications piece
		beetles will disperse up to approximately 250m from where they are across a season.		

Based on data outlined within the Learn Ecology Ecological Appraisal[1], aerial imagery, and data from GiGL and MAGIC, only species that robust data has been provided on have been evaluated within Table 4.2. Any species not mentioned is considered to be likely absent from within the Site boundary, using the results of the site survey undertaken within the Ecological Appraisal[1] of the site.

The main ecological receptors identified for the Site are primarily associated with designated sites, soil quality and contamination, bats, nesting birds, hedgehogs and designated plant species. It is assessed that due to the very low percentage of time the temporary events will be present on a small percentage of the Site, approximately 22% of the total park area, overall impacts are likely to be small in scale. The impacts are considered to be localised, temporary and low level.

In addition, there are opportunities for the events to contribute positively to habitat creation and enhancement for wildlife and people on the Site; guided by professional judgement, the local needs of the park uses, the LPA, and habitats identified in the Ecological Appraisal. These opportunities for enhancement, many of which were outlined within the Ecological Appraisal[1], are given below:

- Planting of standard trees to diversify age structure & ensure continuity of this resource;
- Managing and enhancing the low quality grassland as wildflower meadow to increase diversity and structural variation;
- Allowing native scrub to develop;
- Creating areas of standing & fallen deadwood;
- Enhancement of the riparian edge of the ditch;
- Creation of new wildlife ponds; and
- Introduction of native mixed-species.

In addition, further recommendations have also been provided to increased enhancement opportunities for Gunnersbury CIC including:

- Designated fenced off protection areas for soil and tree root recover, and for the protection of habitats where reptiles, amphibians, and designated plant species may be present;
- Signage and efforts to encourage people with citizen science events such as bat walks and bird watches that could take place within the park; and
- Incorporation of addition bat and bird box's in desirable habitats.

5.0 CONCLUSIONS

There are many external factors which negatively influence wildlife populations within the highly urban setting Gunnersbury Park is located, with the species associated with the Site already exposed and accustomed to elevated levels of artificial light and noise from the surrounding urban environment. In addition, the park is subject to disturbance all year around, with thousands of daily visitors and multiple incidences of birds being disturbed by dogs within the ponds. The parks flood lit sport facilities also acts as a source of light pollution in the centre of the park, in addition to the disturbance caused by the vehicles that access these facilities.

It is acknowledged that the temporary music events occurring at Gunnersbury Park have the potential to cause low level impacts on local wildlife, namely bats and birds. However, with these temporary music events occur a total of 10 days across the year and only contribute 5% of all days within the outlined activity period, with the majority of the time these events are being held outside the nocturnal activity hours. Therefore, these events are likely to result in an overall small-scale impact on a temporary basis. The increased footfall and infrastructure is likely to have some compaction impacts on soils, however, testing proved that the soils are uncontained, with no conclusive link between the events and the pH and/or compaction of the soils. The areas where these events are situated in the park are predominantly located on areas seeded with fast growing grass species, with areas of bare ground likely recover shortly after event conclusion. Therefore, in conjunction with the temporary nature of these events, it is likely impacts are small in scale.

In addition, any opportunities for enhancement also act as an opportunity to engage the local community and involve people in outdoor activities, socialising and connecting with nature, with all the physical and mental wellbeing benefits this has. As a result, if designed and implemented properly, these enchantments will contribute in a positive way for wildlife and people's use of the park for the future.

APPENDIX A SITE MAP

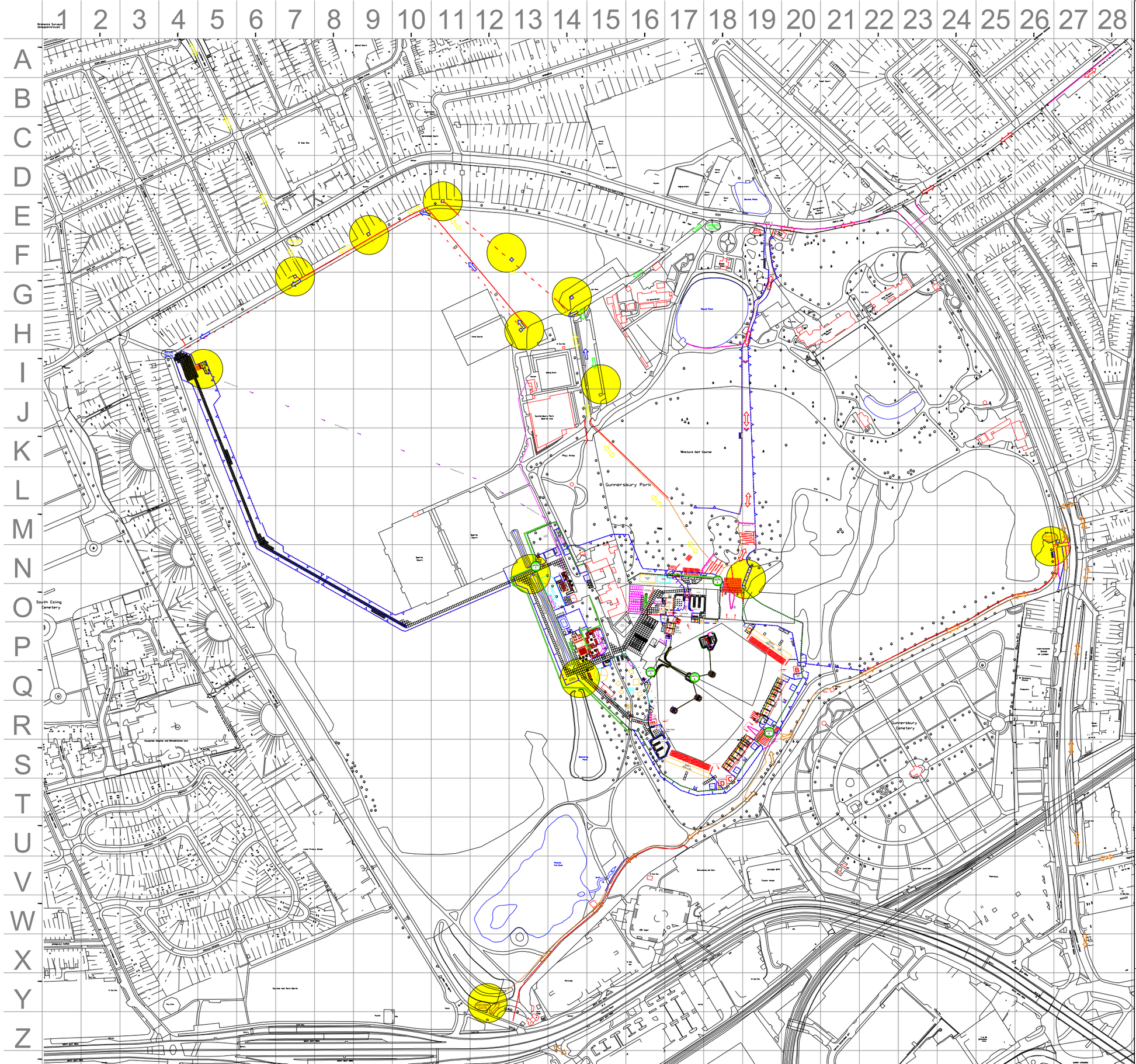
Figure A.1 Site Map

Site Map

- Modified Grassland g4 (park)
- Other Neutral Grassland g3c5 (parkland)
- Scattered Trees (parkland)
- Drainage Ditch r1 50 (parkland)
- Artificial unvegetated, unsealed surface u1c
- Developed land - sealed surface u1b

APPENDIX B INDICATIVE EVENT SITE PLAN

Figure B.1 Indicative Event Site Plan 2024



KEY — ***GRID REF***

_BACK OF HOUSE

1.	STAGE	*(R17)*
2.	EVENT CONTROL	*(P15)*
3.	PRODUCTION + LICENSING	*(O14)*
4.	STAFF / ARTIST CATERING	*(S17)*
5.	BOX OFFICE / GUEST & PRESS LIST	*(P20)*
6.	ARTIST AREA	*(S17-18)*
7.	DRESSING ROOMS	*(S17)*
8.	GUEST / VIP AREA	*(S18)*
9.	STAGE MANAGER / ARTIST LIAISON / PROMOTERS	*(S17)*
10.	SECURITY CABIN	*(I4)*
11.	BONEYARD	*(O16)*
12.	STAFF PARKING	*(N14)*
13.	PLANT PARK	*(N15)*
14.	ACCESSIBLE PARKING	*(J15)*

_ARENA

15.	ARENA ENTRANCE	*(O18, R19)*
16.	ACCESSIBLE VIEWING PLATFORM	*(Q17)*
17.	FRONT OF HOUSE TOWER	*(Q18)*
18.	MERCHANDISE	*(S19)*

_FACILITIES

19.	BAR	*(P16, P19, Q20)*
20.	FOOD & DRINK	*(Q18)*
21.	FIRST AID	*(Q16)*
22.	TOILETS	*(O17)*
23.	URINALS	*(O17)*
24.	ACCESSIBLE TOILETS	*(O17, Q17)*
25.	DRINKING WATER	*(O17, P19, S18, R16)*
26.	UBER PICK-UP	*(I15)*
27.	BIKE PARK	*(N26, H18, Y13)*

INFRASTRUCTURE KEY

- HERAS
- STEELSHIELD
- PED BARRIER
- MET BARRIER
- EMERGENCY EXIT
- STANDPIPE
- PUBLIC DRINKING WATER
- INGRESS / EGRESS ROUTE
- INGRESS & EGRESS ROUTE
- TOILETS, URINALS, ACCESSIBLE
- GENERATOR
- FRIDGE TRAILER

Project	GUNNERSBURY PARK EVENTS
Title	General Site Plan
Version	V2
Drawn By	Jon Lipton
Drawn Date	27/11/2023
Scale	3:5000 @ A0
Grid Size	50m

Company

Festival Republic Limited
30 St John Street
London
EC1M 4AZ

Festival REPUBLIC.

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