



**Cosmeston Lakes,
Vale of Glamorgan**

**Proposed Aqua Park
Ecological Technical Note on Cetti's Warbler**

June 2025

Acer Ecology

REPORT CONTENTS

1.	INTRODUCTION.....	1
1.1.	BRIEF.....	1
1.2.	SITE CONTEXT.....	1
1.3.	PROPOSAL.....	2
1.4.	BACKGROUND AND LEGISLATIVE CONTEXT.....	2
1.5.	NESTING SEASON.....	2
1.6.	REPORTING.....	2
2.	METHODS.....	3
2.1.	SURVEY METHODOLOGY.....	3
2.2.	LIMITATIONS.....	3
3.	RESULTS.....	4
3.1.	EXISTING DATA ON CETTI'S WARBLER AT COSMESTON LAKES.....	4
3.2.	FIELD STUDY.....	4
4.	EVALUATION.....	5
5.	MITIGATION STRATEGY.....	6
6.	CONCLUSIONS.....	7
7.	REFERENCES.....	8

DRAWINGS AND PLANS

PLAN 1: PROPOSED SEASONAL AQUA PARK LOCATION

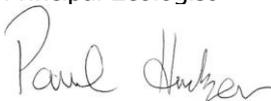
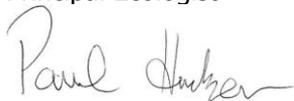
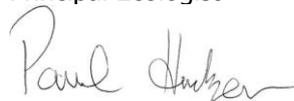
PLAN 2: CETTI'S WARBLER TERRITORY WITH BUFFER ZONES

APPENDICES

APPENDIX 1: STEP-WISE APPROACH

Acer Ecology

DOCUMENT CONTROL

Cosmeston Lakes Ecological Technical Note on Cetti's Warbler				
Revision	Date	Prepared by	Checked by	Approved by
1.0	01 June 2025	Paul Hudson MCIEEM Principal Ecologist 	Paul Hudson MCIEEM Principal Ecologist 	Paul Hudson MCIEEM Principal Ecologist 

Acer Ecology Ltd accepts no responsibility or liability for the use of this document, other than by the client for the purpose for which it was originally commissioned and prepared.

Acer Ecology

1. Introduction

1.1. Brief

Acer Ecology were instructed by the Aqua Park Group to provide an ecological technical note in response to advice received from Natural Resources Wales (NRW) regarding the need for a nesting bird survey ahead of the proposed installation and operation of a seasonal Aqua Park at the eastern lake of Cosmeston Lakes Country Park.

Assent under Section 28H of the Wildlife and Countryside Act 1981 was granted on 23rd May 2025 for the temporary installation of an Aqua Park in the eastern like of Cosmeston Lakes SSSI. The assent is subject to the following condition:

NRW advise that prior to the installation of the Aqua Park a suitably qualified ecologist should undertake a nesting bird survey. Cetti's warbler (Cettia cetti) are known to nest in close proximity to the proposal. Cetti's warbler are listed Schedule 1 on the Wildlife and Countryside Act (as amended, 1981). It is an offence to disturb these species during the breeding season without a valid licence.

Details of appropriate mitigation (following the step-wise approach) for any likely significant effects identified should be provided along with appropriate enhancements. In some instances, mitigation may need to take the form of curtailment or redirection of activities during particular times of year. Where buffer distances are required or need to be considered then reference should be made to Goodship & Furness 2022 or alternative published references for species not listed within Goodship & Furness 2022.

1.2. Site Context

The proposed seasonal Aqua Park is proposed to be installed located at Cosmeston Lakes County Park, Lavernock Rd, Penarth, CF64 5UY (Ordnance Survey Grid Reference: ST 17746 69287)¹ as shown on plan 1.

The site includes two lakes, created from flooded limestone quarries, which are connected by a narrow channel. The lakes are bordered by woodland, lines of trees, and footpaths, with open grassland areas, particularly around the eastern lake.

The wider landscape consists of a mosaic of woodlands, agricultural land, and urban areas, with the Glamorganshire Golf Club directly north.

The site is designated as a Site of Special Scientific Interest (SSSI), Local Nature Reserve (LNR) and country park.

¹ Latitude and Longitude: 51.416612 , -3.1842155

Acer Ecology

1.3. Proposal

The proposal includes the installation of a floating inflatable Aqua Park in the eastern part of the east Cosmeston Lake for seasonal summer use. The Aqua Park will operate at weekends in June and then seven days a week in July, August and the first half of September. It is proposed to close on September 14th, 2025, with all Aqua Park inflatables then removed.

1.4. Background and Legislative Context

Cetti's warbler is a Schedule 1 species under the Wildlife and Countryside Act 1981 (as amended). As such, it is an offence to intentionally or recklessly disturb this species while it is building a nest or is in, on or near a nest containing eggs or young, or to disturb dependent young.

"Disturbance" in this legal context includes:

- Causing a bird to abandon its nest;
- Interrupting feeding of chicks, leading to reduced survival;
- Provoking a bird to leave the nest, exposing eggs or young to the elements or predators;
- Prolonged presence or noise near the nest that results in stress or changes in behaviour (such as reduced singing or mating activity); or
- Sudden or repeated human activity that causes significant behavioural change during the breeding season.

NRW has indicated that Cetti's warbler is known to nest in close proximity to the proposal, thereby necessitating a robust ecological survey and appropriate mitigation strategy to ensure compliance with wildlife legislation and to avoid disturbance to this species.

Cetti's warbler nesting habitat includes reedbeds, marginal scrub, and dense wetland vegetation.

1.5. Nesting Season

The breeding season for Cetti's Warbler extends from mid-March to early August, with the peak nesting period from April to June inclusive.

1.6. Reporting

This technical note outlines the proposed survey methodology, the potential disturbance impacts on Cetti's warbler populations, and sets out an appropriate step-wise mitigation strategy with reference to Goodship & Furness (2022) and other relevant guidance. Opportunities for ecological enhancement are also identified

2. Methods

2.1. Survey Methodology

A nesting birds survey of the site was undertaken by Matt Binding on 30th May 2025 and Paul Hudson on 31st May 2025 and 1st June 2025. Both Matt and Paul are suitably qualified and experienced ornithologists.

The survey method focussed on Territory Mapping and Song Detection. An early morning visit was undertaken to map territories through observing singing males. Cetti's warblers are highly vocal and territorial, allowing for reliable identification of breeding territories. The surveys were all undertaken in good weather between 6.00am and 8.30am.

2.2. Limitations

The three visits were undertaken on consecutive days. Generally, visits should be spaced at least a fortnight apart over the core breeding season.

Acer Ecology

3. Results

3.1. Existing Data on Cetti's Warbler at Cosmeston Lakes

Table 1 below provides monthly totals for bird species recorded at Cosmeston Lakes throughout 2022, based on data extracted from the Glamorgan Bird Club Annual Report. These records offer valuable insights into seasonal variations in species abundance and site usage and are particularly important in understanding the ecological baseline against which potential disturbance impacts can be assessed. The data highlight periods of peak presence for certain species, such as overwintering waterfowl and passage migrants, which are likely to be more vulnerable to human-induced disturbance during specific times of year.

Table 1: Monthly Bird Record Totals for Cosmeston Lakes Extracted from 2022 Glamorgan Bird Club Report

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cetti's Warbler	2	1	3	1	2	1	0	2	1	3	1	2
Notes: Greyed area shows are that Aqua Park is proposed to operate.												

3.2. Field Study

A single Cetti's Warbler territory was found during the survey of the eastern lake during surveys in May and June 2025, its location is shown on Plan 1.

4. Evaluation

A single Cetti's Warbler territory was recorded during the survey. This is located over 100m away from the proposed Aqua Park.

Installation activity and increased recreational use of the site, involving higher levels of human presence and noise during the key nesting period, may disturb the behaviour and breeding success of nesting Cetti's warblers.

There is no specific buffer distance recommended for Cetti's Warbler (*Cettia cetti*) in the literature, including the study by Goodship & Furness (2022). This is likely due to the species' preference for dense, low-lying vegetation in wetland habitats, which may naturally mitigate disturbance. Given the distance between the proposed Aqua Park over 100m away from the Cetti's Warbler, the noise impacts on nesting, territory occupancy and breeding success is likely to be negligible.

The location of the Cetti's warbler territory in close proximity to heavily used public areas, namely a regularly used boardwalk and café suggest it is already habituated to the presence of walkers, dogs, runners, and general human activity.

5. Mitigation Strategy

5.1 Mitigation Strategy (Step-wise Approach)

As part of the Future Wales: The National Plan 2040 and Planning Policy Wales (PPW) Edition 12 (Welsh Government, 2024) planning authorities must follow a stepwise approach to maintain and enhance biodiversity and resilient ecological networks by ensuring that any adverse environmental effects are firstly avoided, then minimised, mitigated, and as a last resort compensated for. Enhancement must be secured wherever possible.

The first priority for planning authorities is to avoid damage to biodiversity and ecosystem functioning. Where there may be harmful environmental effects, planning authorities will need to be satisfied that any reasonable alternative sites that would result in less harm, no harm or gain have been fully considered. This policy is mirrored within the Vale of Glamorgan Local Development Plan 2011-2026 (Vale of Glamorgan, 2017).

The process has been followed on site:

Avoidance – Avoidance has not been possible on site, as there are no alternative sites suitable for a proposed Aqua Park.

Minimisation – As the proposed Aqua Park is over 100m from the Cetti's Warbler territory minimisation is not considered necessary.

Mitigation/Restoration – As only one Cetti's warbler territory has been recorded on the eastern lake, and this is located over 100m from the proposed Aqua Park no mitigation or restoration is considered necessary. Installation of barriers to minimise visual disturbance and reduce noise transmission to the Cetti's Warbler territory is not considered necessary. No phased timing or curtailment or other restrictions on use of the Aqua Park is considered necessary. Similarly, no ecological supervision of the installation of the Aqua Park or provision of toolbox talks to contractors to limit any impacts to Cetti's warbler is considered necessary.

Compensation on-site – No on-site compensation is considered necessary such as habitat creation and enhancement measures of Cetti's warbler habitat on site is considered necessary.

Compensation off-site – No off-site compensation is considered necessary.

5.2 Cetti's Warbler Monitoring

No monitoring of the Cetti's warbler presence on site is considered necessary given the low number of territories present (one) and the distance of the territory from the proposed Aqua Park (over 100m away).

6. Conclusions

NRW's advice has been reviewed and a precautionary approach adopted to address the potential for disturbance to breeding Cetti's warbler. Through targeted survey, adherence to legal requirements, and implementation of a robust step-wise mitigation strategy, it is considered that the proposed Aqua Park can proceed without adverse effects on Cetti's warbler.

A single Cetti's warbler territory was recorded on site. This is over 100m from the proposed Aqua Park and so disturbance is considered to be negligible.

No curtailment or restrictions are considered necessary.

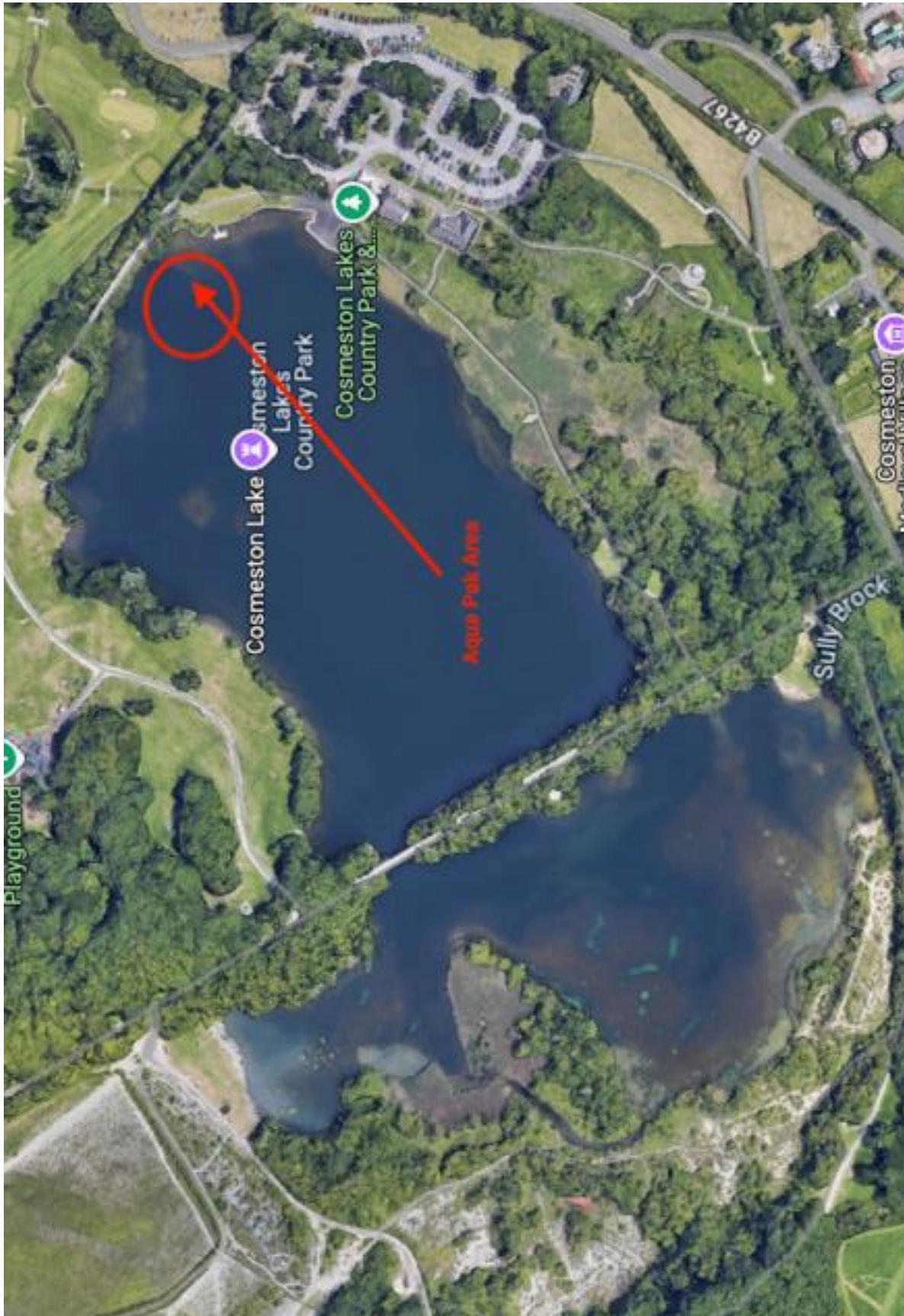
7. References

Goodship, N.M. & Furness, R.W. (2022). *Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species.* NatureScot Research Report 1283. Available online at <https://www.nature.scot/doc/naturescot-research-report-1283-disturbance-distances-review-updated-literature-review-disturbance>

Vale of Glamorgan (2017) *Vale of Glamorgan Local Development Plan 2011-2026.* Available online at https://www.valeofglamorgan.gov.uk/Documents/Living/Planning/Policy/LDP/Vale_of_Glamorgan_Deposit_LDP_Written_Statement_Feb_2012.pdf

Acer Ecology

Plan 1: Proposed Seasonal Aqua Park Location



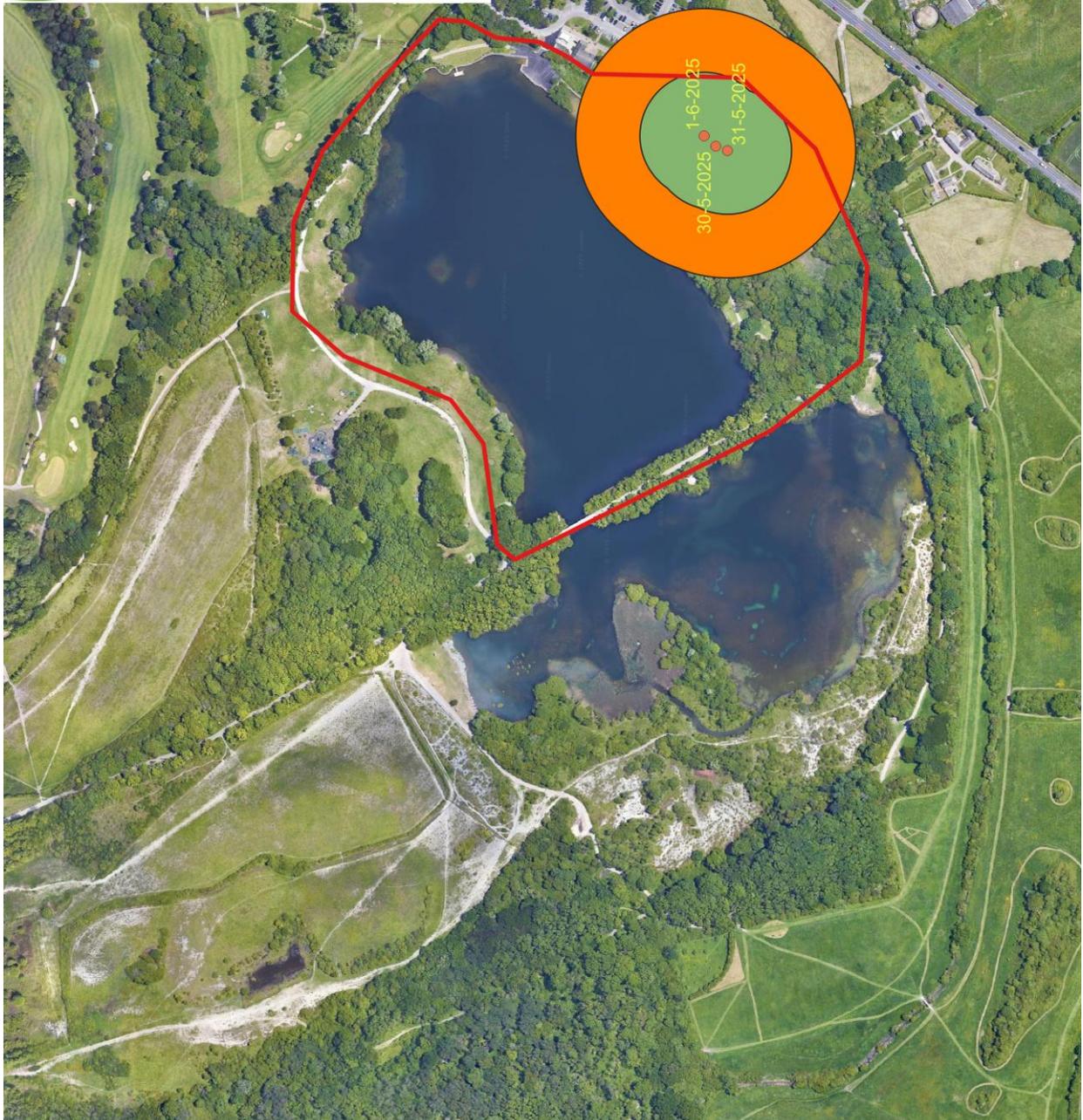
Plan 2: Cetti's Warbler Territory with Buffer Zones



**Cosmeston Lakes
Proposed Aqua Park**

**Cetti's Warbler Territory
with Buffer Zones**

© QGIS and Google Maps data 2025



Appendix 1: Step-wise Approach:

Planning Policy Wales Version 12 provided further clarity on the need to secure a net benefit for biodiversity through the application of the step-wise approach, including the acknowledgement of off-site compensation measures as a last resort, and, the need to consider enhancement and long-term management at each step.

