



Improvement Plan for Great Crested Newts Westfield Common 5th Year Review

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Woking Borough Council

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Quality Assurance

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Revision History

Revision	Date	Amendment
1	06.12.2021	First submission

Non-Technical Summary

Woking Borough Council is involved in a five-year pilot project with Natural England, which is based on a landscape-wide approach to great crested newt (GCN) mitigation. The project's aim is to achieve the favourable conservation status of this species more strategically across the whole borough rather than by imposing 'piecemeal' mitigation strategies at numerous localised sites.

This is the fifth and final year of the Westfield Improvement Plan. Most of the works in accordance with the original Improvement Plan have been achieved as scheduled but with a few amendments. Monitoring between 2017 and 2021 has shown that ponds in both the north and the south have improved in terms of their suitability to support newts. With the inclusion of two new ponds constructed in 2020, ponds SCW8 and CWC2, the network of GCN ponds across Westfield Common is now complete. Survey results in 2021 also showed an expansion in the range of GCN with the ponds to the south of Westfield Common becoming occupied by GCN.

Volunteer and contractual work through local resident groups and the Wildlife Trust continue to contribute to the ongoing management and maintenance of Westfield Common expanding their works to include more of the Common including keeping a close visual on pond CWC2 which is vulnerable to litter.

Monitoring in 2021 showed similar populations in the north of the common to surveys conducted in 2019. To the south there was an increased level of GCN presence onsite with evidence of GCN recorded in ponds 3 and 4 for the first time. Unfortunately, a botte trap of unknown origin was found in pond 11(new) which contained multiple dead GCN. This incident was reported to the police.

The Favourable Reference Values continue to show that whilst the potential terrestrial and aquatic habitats have now been achieved, actual occupancy of GCN ponds has not yet been met. This lack of actual GCN occupancy in part reflects the baseline position of GCN that were originally present across the Common, which in the case of the south east GCN population (around ponds 1 and 2) has proved to be exceptionally low. In the north (Bonsey Wood) the area is considered to be completely occupied with all suitable ponds for GCN (in accordance with 2019 and 2021 survey data) complete and safeguarded for the future. The southern GCN population started from a very low GCN population base and probably remains so and will take many years to build up numbers and for the GCN population to spread across the Common, but the recent results are starting to show additional colonisation in these southern ponds. Based on these results, it would be expected that the ponds SWC7, SWC8 and SWC9 may take another four to five years to be colonised. However, in the short term these ponds provide a valuable habitat for the site and are likely (if not already) colonised by other amphibian species such as frogs and smooth newt.

An assessment was also made of the potential opportunities to expand the pond network across the borough to potentially increase the GCN populations or at least expand the number of wildlife ponds. A provisional work programme for years 6 to 10 has been provided. The work programme includes ongoing works within Westfield Common and aspirations for the wider borough to increase further the suitable habitat for GCN.

In addition, in 2021 an article was published in *In Practice* promoting the learning gained of the project over the course of five years.

1 Introduction

The fifth and final year of Westfield Common Improvement Plan has been completed. This report summarises the findings and works completed. This report is the final report and therefore there is no detailed work plan for next year. The table setting out years 6 to 10 should be reviewed by Woking Borough Council and taken forward.

1.1 Background Scope to the Project

The purpose of the project is to fulfil the requirements of the pilot scheme for the new, landscape-wide approach to great crested newt mitigation in Woking. The Westfield Common Improvement Plan¹ was written by ADAS in 2016 to realise the following elements:

- *Enhancement and creation of ponds;*
- *Enhancement of habitat connectivity with the wider metapopulation of great crested newts within the borough;*
- *A monitoring strategy to assess great crested newt population sizes and habitat quality at Westfield Common; and*
- *Consideration of a monitoring strategy to assess the scale of loss of known 'great crested newt zones' to development and general population trends within the borough.*

In addition to the above elements, which are specifically included to be of benefit to great crested newts, the Improvement Plan has considered the following wider issues relating to Westfield Common:

- *Benefits to other notable flora and fauna which occur or may occur at the Common; and,*
- *Management of invasive plants which are known to occur at the Common.*

The Improvement Plan is designed to add to the current existing Management Plan produced by Surrey Wildlife Trust (Surrey Wildlife Trust, 2014 and updated in 2017). The 2014 Management Plan identified five features associated with Westfield Common, which are: woodland, pond and ditches, grassland, community and monitoring. This Improvement Plan in effect adds a sixth feature: great crested newts. Therefore, there will be some degree of overlap between the existing Management Plan and the Improvement Plan.

¹ www.woking.gov.uk/sites/default/files/documents/Nature/nestednewts.pdf

1.2 Consultation

The fifth year of the project has worked with a range of organisations that include:

- *Woking Borough Council;*
- *Natural England;*
- *Surrey Wildlife Trust;*
- *Surrey Amphibian Reptile Group (SARG);*
- *Amphibian & Reptile Conservation (ARC)*
- *Residents associations, Friends of Westfield Common volunteers; and*
- *SERCO, Woking Borough Council's environmental partner.*

Key consultation events in the fifth year included:

- *28th January 2021 – GCN Licensing Expert Panel – gave a presentation;*
- *16th February 2021 - Meeting held with NatureSpace;*
- *8th March 2021 – Correspondence with Natural England with regards seeding ponds; and*
- *20th October 2021 – Stakeholder meeting;*

1.3 Publicity

To celebrate and report back on the learning of the five-year project an article was published in the Chartered Institute of Ecology and Environmental Management (CIEEM) magazine 'In Practice.' The article was titled 'Pioneering Practice with Great Crested Newt District Level Licencing: Learning Through the Woking Pilot (Simpson and Haskins, 2021),' and published in the 30th Anniversary Edition of the magazine in September 2021 (Link: [Great crested newts | Woking Borough Council](#)). One of the positive pieces of feedback on the article was '*A good example of taking a recent and challenging initiative that has been piloted and reporting back on actual results! Very helpful for the readership who would have heard all of the positive and negative debates about the concept, but not an informed view of the outcomes, even if small-scale and early in this instance*'.

1.4 Training

Only limited training was possible in 2021 as number of volunteers participating in the survey was kept to a minimum due to COVID-19 safety restrictions. Westfield Common continues to present itself as a good venue for training and should be considered as an opportunity for future amphibian training events.

1.5 Planning and developer participation

Currently the scheme has three permits across two sites. This is a fairly low return and demonstrates one of the challenges of delivering the Woking Pilot Scheme in a borough that has few GCN populations. Natural England also confirmed there have been no GCN licences issued under the traditional route in the last couple of years.

1.6 Licence update

Woking continues to work under Natural England District Level Licence (DLL) - reference WML – OR21-3, renewed last year, and which runs between 24 September 2020 and 23 September 2022.

2 Fifth Year Update

2.1 Practical Works

Based on the fifth year programme there were no significant contractual works required. Practical works were still undertaken by Surrey Wildlife Trust in relation to the pond network:

North of Westfield Common:

- *Coppiced three willows and removed saplings around pond 11.*

Centre of Westfield Common

- *Undertook two weekly litter picks to include pond CWC2.*

South of Westfield Common:

- *Cleared bramble around pond 2.*

All ponds that have been created held water throughout the season including the section of pond 3, which has been lined. It is noticeable that works in year 1 around certain ponds require increased level of maintenance with bramble starting to form a monoculture habitat around the banks of the ponds. This is particularly noticeable around pond 12 and ditch 14 in the north and pond 2 to the south.

2.2 Planning, Consents and Signage

All planning and consents are in place, which fall under:

- *Felling licence (AWC1) – Forestry Commission (licence number 019/389/16-17), which is valid until 23rd November 2021, this is considered not requiring to be renewed;*
- *Planning application (AWC2) - Planning reference PLAN/2017/1017; (creation of five ponds and extension of an existing pond (habitat improvement for great crested newts) and COND/2017/0135 (discharge of condition 3 regarding arboricultural information) – all the ponds have now been constructed.*

2.3 Monitoring

Based on Year 5 monitoring a series of monitoring surveys including Habitat Suitability Surveys (HSI) (MWC1) and breeding - presence/absence surveys (MWC2) were completed on 15th and 16th April and 13th and 14th May 2021, with a small group of volunteers who contributed to the survey effort. Photos of the key ponds in their final year are presented in Appendix 1. In brief the results identified the following:

North of Westfield Common

Ponds 11, 11(new), 11a, and 12 were all recorded with great crested newt eggs. The eggs were recorded on a range of material which included, floating sweet-grass (*Glyceria fluitans*) and willowherb (*Epilobium*

sp.). The level of egg layering material at all waterbodies is now at a suitable level, except for Ditch 14, which is still shaded but smooth newt eggs were recorded on floating sweet-grass.

The highest great crested newt count of any of these ponds was 17 (9 male and 8 female) in pond 11 recorded on 14th May from the bottle traps. In total, the meta-population counts in April were 8 and in May, 23 taken from the bottle trapping figures. Sadly, a bottle trap of unknown origin had been left in pond 11(new) and contained a number of dead GCN. This incident was reported to the police, reference: BCA-53416-21-4545-IR. In addition, the invasive non-native species, water fern (*Azolla filiculoides*) was also recorded in pond 11(new) and has likely spread from nearby ponds to Westfield Common. Water fern can form dense mats across the surface of the water affecting the quality of the pond. Care will need to be taken to stop the spread of water fern to other ponds, and action taken to reduce/remove water fern from the pond. There are now biological controls² that can eradicate the plant from the pond and this may be a consideration for future management.

South of Westfield Common

Ponds 21 and 22 (private residence) were both recorded with the presence of great crested newt eggs on 16th April 2021 and GCN eggs were recorded in pond 2 on 14th May 2021. Eggs were typically recorded on floating sweet-grass and reed canary-grass (*Phalaris arundinacea*). During the torch light survey on 15th April 2021 the highest great crested newt count was recorded in pond 22 with a total of 10 (7 male and 3 female). Bottle traps captured GCN in ponds 1, 2 and 4 and torch light surveying recording a male GCN in pond 3b (note pond 3 has been split into 3a and 3b). This is the first-time during surveying that adult GCN have been recorded across these ponds (only GCN eggs or eDNA have identified the presence of GCN in ponds 1 and 2); it is particularly noteworthy that this is the first evidence of GCN recorded in ponds 3b and pond 4.

The ponds across Sutton Green golf course were in general found to be sub-optimal in the surveys conducted in 2019. Therefore, effort was reduced to record eDNA in pond 18 only, which came back negative.

Other eDNA results included pond 1 which was positive with an eDNA score of 9 of 12 up from 2 of 12 in 2019; pond 2 was positive with a score of 2 of 12 and pond 3a came back negative. In addition, a pond to the north of Bonsey Wood was eDNA surveyed base on local knowledge that it might support GCN. The pond was named Bonsey Flood pond, located at NGR: TQ 00104 56893 and the result came back negative.

Full details of the surveys are presented in the plan in Appendix 2 – HSI results plus notes on the ponds and Appendix 3 – 2021 survey results. eDNA results are presented in Appendix 4.

² <https://www.cabi.org/projects/azolla-control/>

Wider Westfield Common – (Prescriptions MWC5 and MWC6)

A study area has been assessed based on a grid using 48 - 250m squares which equates to 3km² to look at the parameters to achieve Favourable Conservation Status (FCS) for Westfield Common, details of which are set out in the 2nd year review report (ADAS 2018); in addition the 2018 ADAS report recorded Favourable Reference Values (FRV) for range, population and habitat. Based on the completion of the works in 2021, the FRV values to date and the target figure are presented in the table below and the 2021 data shown in the plan set out in Appendix 5:

Table 1: Favourable reference values (FRV) in relation to the study area associated with Westfield Common

	Range		Population HSI ponds		Habitat	
	250m actual squares*	250m potential additional squares**	HSI ponds ≥0.7	Occupied ponds	Available habitat (ha)***	Occupied GCN habitat (ha)****
Baseline (2016)*	21	8	7	7	53.73	46.65
2017	21	14	8	8	67.23	48.58
2018	24	12	10	9	73.01	53.57
2019	24	12	13	9	78.78	45.44
2020	24	12	15	-	80.57*****	49.23
2021	24	12	15	11	80.57	52.92
Study area Target	36		15	13		81.94

*Range based on known GCN occupied ponds

**Range of additional squares with ponds with a HSI equal to or greater than 0.7.

***Available habitat based on known GCN occupied ponds and ponds with a HSI equal to or greater than 0.7. Habitat included is habitat considered to be of good or medium terrestrial habitat.

****Known occupied terrestrial habitat 250m from ponds with known population of GCN.

*****Note this figure was based on the delivery of two new suitable ponds created in winter Jan/Feb 2020

Future prospects, which is the fourth parameter under the Favourable Conservation Status, has no target measurement. For further information on the Risk Register see the 2nd year review (ADAS 2018). The list as detailed on the Risk Register is considered to be consistent with current status of the Common. A few comments on the current register include:

Community support (practical/general): One of the benefits of the site is the opportunity to engage with the local community. Works are in place with Surrey Wildlife Trust to continue this community engagement but where possible and practical, opportunities should be considered to further promote this. This could include interpretation, training opportunities and increasing the number of groups engaged with the works.

Invasive Non Native Species (INNS): One of the risks that has been highlighted and in part considered to be a significant issue within the area of public access is the spread of INNS, which has occurred in the form of water fern being spread to pond 11(new). Annual monitoring of all ponds must be undertaken to check for INNS.

Disruption caused by dogs/ spread of disease: Works have been undertaken to reduce dogs getting into waterbodies by dead hedging along the pond perimeters. The dead hedges in places will reduce over time and these will need to be restacked during annual maintenance of the ponds.

Vandalism and other anthropogenic disturbance: Litter is and will be a continued issue across the Common due to the public nature of the site and regular litter picks (which are in place) will need to continue.

Pond quality degradation: the ponds restored and created are reliant on regular maintenance in order not to degrade over time and become shaded out. Therefore, works are required to keep brambles down and to remove marginal vegetation where it is becoming too thick.

Fragmentation of habitat: A significant challenge with the current scheme is the lack of third party land opportunities. Works should continue to assess ways to increase the wider opportunities around Westfield Common to encourage GCN to spread further and make the GCN population more resilient to future changes such as Climate Change.

2.4 Seeding

A proposal was made to assist with the colonisation of ponds by seeding the water bodies with GCN eggs taken from ponds with an existing population. This method is licensed under WML-OR21-3 (activity reference A2 and with regards to conditions P2, P4, P5, P6, P8, P11).

The seeding proposed would be in the use of egg strips positioned into the known newt ponds and left in-situ for 2 to 4 weeks during March and April before transferring the egg strips and anchoring them into the warmer shallows of the new ponds. An estimated count of eggs will be made to assess numbers transferred, with consideration that the recommended number of eggs to move is 600 eggs³ in each survey season. In total, 10 egg strips would be placed in ponds in the northern ponds and 10 in the ponds in the south west. The egg strips would be transferred from each of the locations to ponds 3 and 4 and SWC8 and SWC7 respectively. The egg strips would be left in-situ for the rest of the GCN aquatic season. The guidance does state that eggs should be taken from pond networks that have a large population and therefore after the first year the approximate egg count will be assessed alongside continuing population

³ Froglife (2001) Great Crested Newt Conservation Handbook

monitoring of the ponds and should there be any adverse evidence in relation to the GCN populations the seeding works will be reviewed.

Prior to taking this forward, consultation was held with Natural England to assess the viability of this method in association with the Westfield Common. The response was that, based on the guidelines, it is recommended taking eggs from a large population of 100+ GCN. The site does not support these numbers according to the 2019 surveys. 2020 surveys were postponed due to Covid-19 restrictions. Given 600 eggs would need to be removed from the source population the concern is:

- may not achieve the required number to make seeding a successful exercise; and
- even if possible, given the small population sizes, this would be taking away from the source populations.

As such, Natural England recommend that updated surveys are conducted this season (2021) to provide further evidence to support the application to seed ponds. Depending on the results it may be acceptable next season.

In the event of the 2021 survey, GCN were found to be present in pond 3b and pond 4, thus negating the need to seed. It is expected that GCN will find their way to ponds SWC8 and SWC7 and it maybe that this will take 4 to 5 years based on the current size of the population onsite.

3 Objectives

No further amendments to the objectives.

Objective 1 is considered to be on target with conditions to improve great crested newt populations in both the north and south of Westfield Common having been improved and the evidence shows there is a good medium sized population in the north of the common, whilst the newts in the south remain low but showing evidence of increased pond occupancy.

Objective 2 – Favourable Reference Values have now been set for Westfield Common and works are ongoing to set the figures for the wider Woking borough. New SOAs were produced by Natural England, which will support the plan for the Council going forward. Given the low numbers and patchy status of GCN across the borough, not all areas accessible for future enhancement will benefit the GCN population but new ponds will provide added benefit to wildlife.

3.1 Other Wildlife

No additional observations of other wildlife were identified in 2021 to add to those species previously identified.

3.2 Strategic Opportunity Areas (MWC6)

Appendix 6 shows the latest Strategic Opportunity Areas (SOA) plan for GCN in Woking based on the areas of land owned by Woking Borough Council. The SOA shows both the core and fringe habitats for GCN. As can be seen on the plan, the areas identified within the SOA which is owned by Woking Borough Council are very limited. This presents a significant challenge long term in being able to build corridors across the area without third party land input. Thus, any expansion of the pond network would initially be to strengthen pockets of aquatic habitat within the borough to support amphibians including GCN.

To assess these pockets of habitats, a review was undertaken of a number of sites across the borough which based on the SOA were considered to have the potential best opportunities. These areas included (photographs of each site are presented in Appendix 8):

- *Recreation Ground*
- *Parkland*
- *Sheets Heath*
- *Smarts Heath*
- *Prey Heath East*

In brief, the potential for each of these sites is:

Recreational ground – this site was clearly identified as being unsuitable as the entire area was made up of sports fields and play equipment, with the management of the site consisting of short well maintained grassland (Photo 1 – Appendix 8). This also represents an example of the importance of ground truthing areas of the SOA to assess their suitability.

Parkland – this area provided an extensive area of scrub, woodland and rough grassland (Photo 2 – appendix 8), providing suitable terrestrial habitat for amphibians. There were waterbodies onsite which appeared to be lakes suitable for fishing (Photo 3 – Appendix 8) and therefore not suitable as aquatic habitat for amphibian species. The Parkland area is located on the edge of a relatively urban area and is likely to have a fairly heavy footfall. Therefore this area would benefit from new ponds but measures would need to be put in place to protect the waterbodies from being adversely impacted.

Sheets Heath – this is an area of lowland heathland dominated by heather (*Calluna vulgaris*) (Photo 4 – Appendix 8); there are well established paths across the site and a pond (Photo 5 – Appendix 8) was identified onsite that was considered suitable for amphibians although it was also significantly impacted by walkers and dogs accessing the pond. In consultation with the Surrey Amphibian & Reptile Group this pond may support palmate newts and the site is also potentially too acidic to support GCN. However, the site is considered to have areas suitable for additional ponds as long as this does not adversely impact the heathland (Photo 6 – Appendix 8).

Smarts Heath – this area supported areas of lowland heath (Photo 7 – Appendix 8) but there were areas around the perimeter containing more birch woodland which had affinities with the habitats on Westfield Common. In addition, there were existing hollows onsite (Photo 8 – Appendix 8) that would benefit from restoration works to enhance their potential to support aquatic habitats more suitable for amphibians, albeit these hollows/scrapes will already be providing benefits and any pond work should aim to complement these features. The other notable benefit of the site is that it is actively grazed which would aid in the long-term management of ponds onsite.

Prey Heath East – This site was very similar to Smarts Heath but there appeared to be even greater opportunities to open up hollows that appeared onsite and were typically located around the periphery of the site (Photos 9 and 10 – Appendix 8). The site also benefited from being actively grazed.

In consultation with Surrey Amphibian & Reptile Group, Horsell Common was suggested as a potential site for future ponds to support amphibians. The key limiting factor with this site under the current setup is that the Council has little land ownership in this area, which may initially prohibit future opportunities.

Woking overall supports many lowland heathland sites, which may also impact the wider distribution of GCN in the area due to the acidity of the soils. In addition, heathland itself is a priority habitat that has significantly declined and any pond network must avoid damaging this habitat type. One aspect that is fairly typical over many of the sites is areas around the periphery which provide greater opportunities to

utilise already existing hollows. These hollows could be worked on to create more more permanent ponds thus increasing the diversity of aquatic features onsite; this would be similar to the approach taken at Westfield Common. Therefore, based on this review and in light of the current limitations of the scheme, the most suitable sites for future pond works are Smarts Heath and Prey Heath East, which are also geographically the closest to Westfield Common.

The other consideration to take into account is the decision to either focus on increasing the pond network with all the added wildlife benefits or to strategically target ponds to become occupied by GCN. If the decision is more for the latter it may be that more ponds are constructed on third party land around already known GCN populations rather than targeting a wider borough strategy.

4 Work Plan 2021-2026

To provide a programme of continuation into the future, a table of future management is set out for Westfield Common and for the wider borough for years 6 to 10.

The additional works between years 6 and 10 must take into account the aspiration of the Borough's other plans such as those that relate to Climate Change, going carbon neutral, local residents groups and works on-going with Surrey Wildlife Trust.

Table 3: Work Plan 2021-2026

No.	Prescription	Year of works (6 to 10)				
		6	7	8	9	10
	Westfield Common – practical works years 6 to 10					
1	Capitals works review. Assess at the end of each year the impact of the works undertaken in previous years and assess if any changes are required to the works programme in order to meet the objectives and the Favourable Reference Values.	x	x	x	x	
2	Manage the extent of aquatic/marginal pond vegetation. Remove pond vegetation if it becomes greater than 60% coverage (this is particularly notable in pond 4). Vegetation removal to be undertaken in winter months between November and February. All material removed by hand and placed adjacent to the pond.	x		x		x
3	Cut back encroaching scrub (bramble) around the ponds across Westfield Common. This is recommended to be undertaken on a three year cycle across all the ponds that support or have the potential to support GCN.	x	x	x	x	x
4	Use cut material to rebuild the existing dead hedge network.	x	x	x	x	x
5	Certain terrestrial habitat around ponds will need to be strimmed to a height of 100mm in September/October every other year. This is particularly noted around pond 2 but as other ponds have been opened up this will likely include ponds 3, SWC 7, 8 and 9. Other ponds will need to be assessed on a biannual basis.	x		x		x
6	Control non-native invasive species. Check and inspect the Japanese knotweed next to pond 2 and treat accordingly. Check around ponds 2, 3 and 4 for the	x	x	x	x	x

No.	Prescription	Year of works (6 to 10)				
		6	7	8	9	10
	<p>presence of buddleia and pull any new emerging plants and stack woody material on to the existing dead hedges.</p> <p>Extra care is required to avoid spreading water fern from pond 11(new) to other existing ponds onsite.</p>					
7	<p>Manage anti-social activities. There are two key issues in relation to Westfield Common; litter and motorbike access. Regular litter pick the sites that are known ‘hotspots’ for rubbish (min. every other month) – this includes around pond CWC2 and Bonsey Wood. Other areas that require less frequent checks are near ponds 2, 7 and 8.</p> <p>In previous years, timber has been used to strategically block motorbike access, in particular in the southern half of Westfield Common; these features should be inspected and if required replaced to discourage such activities.</p>	x	x	x	x	x
8	Holly removal has been undertaken by Surrey Wildlife Trust and resident volunteers across Westfield Common. Holly can become a dominant shrub layer. It is recommended that holly is kept to a level of between 15% to 30% of the shrub layer. Devise a future programme of holly management.		x			
9	Work with interested parties including the Sutton Golf Course, SWT and WBC to undertake works to open up and manage ponds 9 and 9a.		x			
10	Work with and set a plan with landowners of pond 1 to remove parrot’s-feather (schedule 9 species), reduce the level of shade and desilt the pond.		x			
11	Continue to establish the potential for a conservation covenant to protect the long-term management of ponds 21 and 22, which are key GCN ponds within the area.	x				
12	Create and design suitable promotional material to promote the biodiversity of Westfield Common – lead on this will be WBC. This could be incorporated as part of the allocated Suitable Alternative Natural Greenspace (SANG) provision, with an emphasis on promotional material to keep people away from the most sensitive areas.	x				x
13	Restore ponds 5 and 6 (may be to make a single pond). This will increase the collection of ponds within this southern section of Westfield Common.				x	

No.	Prescription	Year of works (6 to 10)				
		6	7	8	9	10
14	Westfield Common – monitoring					
15	Undertake biannual HSI assessment by a suitably qualified ecologist of the ponds and use to identify any significant changes that can be used in the management of ponds, i.e. shading, macrophyte cover and water levels and assess any risks to the ponds and surrounding habitats.		x		x	
16	Undertake annual population surveys using locally trained volunteer group. Surveys designed to assess both presence and absence and obtain a subset of population. Two surveys to be undertaken (mid-April and mid-May). Records to be provided to WBC, SARG and SWT.	x	x	x	x	x
17	Update risk register on a biannual basis		x		x	
18	Woking Borough (years 6 to 10)					
20	Set a new target for the number of new GCN ponds to be constructed across the borough. This target is considered to go beyond the number required to offset impacts from future development within the borough and to act as additional strategies to tie in with carbon offsetting and climate change. Sites for future ponds as identified using the SOA include Smarts Heath and Prey Heath East, although for greater opportunities for GCN occupancy working with third party landowners in areas of known GCN populations, such as Westfield Common may be a preferable way forward.	x		x		
21	Use the landscape models to identify the locations with the potential to expand the GCN population within the borough. Focus to be given to area with the potential for establishing successful GCN populations as well as long-term management. An aspiration could be a pond/year, this aspiration may wish to broaden the scope to wildlife ponds rather than being specific to GCN.	x	x	x	x	x
22	Legal and future funding framework – expand knowledge of conservation covenants (currently a part of the Environment Bill). Set an annual budget to be reviewed for the on-going and long-term management of the GCN network within the borough.	x	x	x	x	x

No.	Prescription	Year of works (6 to 10)				
		6	7	8	9	10
23	Liaison with other landowners – expand the work to identify future landowners who would be willing to support the GCN project – this is to be tied into the modelling established for the borough.	x	x	x	x	

5 References

ADAS (2016) Westfield Common Improvement Plan

ADAS (2017) Improvement Plan for Great Crested Newts Westfield Common 1st Year Review

ADAS (2018) Improvement Plan for Great Crested Newts Westfield Common 2nd Year Review

ADAS (2019) Improvement Plan for Great Crested Newts Westfield Common 3rd Year Review

ADAS (2021) Improvement Plan for Great Crested Newts Westfield Common 4th Year Review

Natural England (2020) Organisational Licence / District Level License to Woking Borough Council.

Natural England (2017) Favourable Conservation Status: England Contribution. Species: S1166 Great Crested Newt *Triturus cristatus* v1.0.

Simpson and Haskins (2021) Pioneering Practice with Great Crested Newt District Level Licencing: Learning Through the Woking Pilot, CIEEM, In Practice.

Surrey Wildlife Trust (2014 and 2017 update) Westfield Common Ecological Management Plan

Woking Borough Council (2016) Natural Woking Supporting Information – Appendix 10 - Great Crested Newt.

Woking Borough Council (2016) Contractor maintenance species awareness guide

Appendix 1: Photos of ponds

Taken September 2021



Photograph 1. Pond 2.



Photograph 2. Pond 3b.



Photograph 3. Pond 4 (note covered with floating sweet-grass).



Photograph 4. Pond SWC8



Photograph 5. Pond SWC9.



Photograph 6. Pond SCW7



Photograph 7. Pond 11



Photograph 8. Pond 11a



Photograph 9. Pond 11(New)



Photograph 10. Pond 12



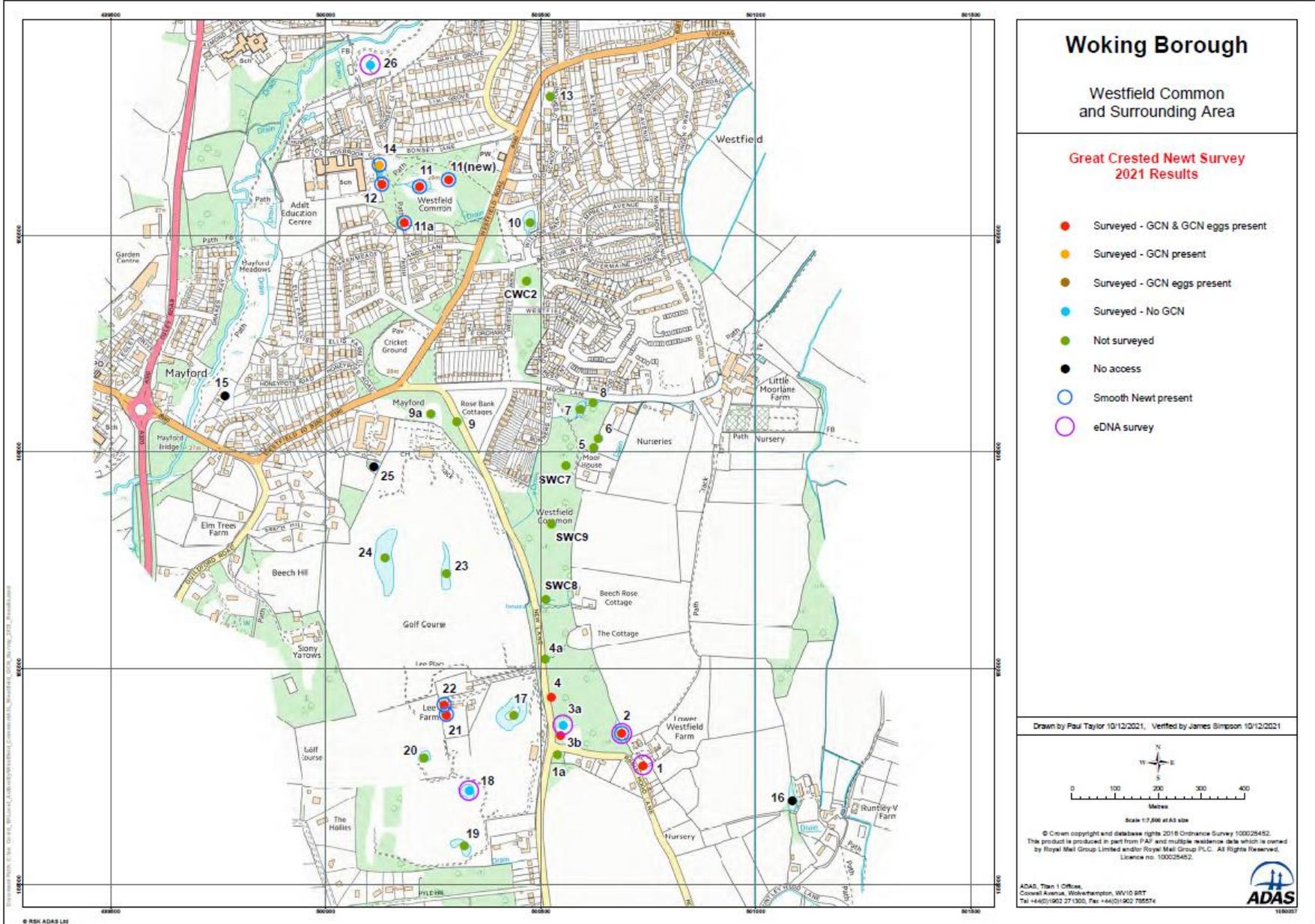
Photograph 11. Ditch 14



Photograph 12. Pond CWC2

Appendix 2: Plan of the Survey Results

See following page.



Appendix 3: HSI Survey Results 2017, 2018, 2019, 2020 and 2021

Habitat suitability Index (HSI) scores for ponds on Westfield Common

Pond	HSI Score 2016	HSI Score 2017	HSI Score 2018	HSI Score 2019	HSI score 2020	HSI Score 2021	Pond suitability	Notes	GCN present in 2021
1	0.63	0.63	0.63	0.63	0.63	0.63	Average	Parrot's-feather present, located at the back of a garden	Yes
1a	-	-	0.51	0.51	-	-	Below Average	A small ornamental garden pond covered in duckweed. First recorded in 2018	No
2	0.43	0.72	0.82	0.85	0.82	0.82	Excellent	A large pond devoid of marginal vegetation	Yes
3a*					-	0.60	Average	A pond split in two and devoid of marginal vegetation.	No
3b*	0.43	0.76	0.68	0.84	0.88	0.80	Excellent	Section lined to hold water annually.	Yes
4	0.48	0.43	0.71	0.74	0.76	0.76	Good	A small pond next to the road – improved and lined. Macrophytes have developed around perimeter.	Yes
4a	0.54	0.54	0.54	0.54	0.61	0.61	Average	A small pond adjacent to track and road, float grass present	No
5	0.46	0.46	0.46	0.46	0.46	0.46	Poor	Dry	No
6	0.46	0.46	0.46	0.46	0.46	0.46	Poor	Dry	No
7	0.77	0.77	0.77	0.77	0.87	0.87	Excellent	Pond off Moor Lane, contains locally rare bladder sedge.	No
8	0.53	0.53	0.53	0.53	0.61	0.53	Below average	Pond off Moor lane and connected to pond 7	No
SWC7	-	-	-	0.73	0.80	0.83	Excellent	New pond 2019 – HSI taken in Aug 2019.	No
SWC8					0.74	0.78	Good	New pond 2020	No
SWC9	-	-	-	0.73	0.82	0.82	Excellent	New pond 2019 – HSI taken in Aug 2019.	No
CWC2					0.71	0.75	Good	New pond 2020	No
9	0.36	0.36	0.36	0.36	0.36	0.36	Poor	Dry	No

9a			0.72	0.72	0.72	0.72	Good	Permanent – Neglect an issue	No
10	0.33	0.33	0.33	0.33	0.33	0.33	Poor	Fish, water fowl and <i>crassula</i>	No
11	0.85	0.85	0.85	0.85	0.85	0.85	Excellent	Large pond in centre of northern wood	Yes
11a	0.55	0.58	0.69	0.71	0.68	0.69	Average	A thin pond with float grass located at the back of houses. Dries annually	Yes
12	0.55	0.73	0.8	0.83	0.83	0.80	Excellent	A pond understood to be clay lined. Good coverage of marginal vegetation.	Yes
13	0.70	0.70	0.70	0.70	0.70	0.70	Good	A pond in a residential area. Separated from other ponds by urban development.	No
14	0.41	0.41	0.41	0.51	0.54	0.54	Below average	Part of a ditch, float grass present. Works have been undertaken to remove overhanging vegetation.	Yes
NWC4 (11 new)	-	-	0.72	0.76	0.77	0.77	Good	New pond constructed 2018, macrophytes have now grown round the perimeter of the pond.	Yes
18	-	-	0.85	0.55	0.55	0.52	Below average	Golf course pond – fish were recorded in the pond in 2019	No
21	0.70	0.70	0.70	0.70	0.80	0.82	Excellent	Private land owner – lined pond.	Yes
22	0.75	0.75	0.75	0.75	0.75	0.78	Good	Private land owner – lined pond	Yes
Total no. of ponds 0.7 or over	5	8	10	13	15	15	Target = 15		
GCN positive	6	8	9	9	-	11	Target = 13		

*Pond 3 has been split into pond 3a and pond 3b after works in 2020.

<0.5 = Poor; 0.5 – 0.59 = Below average; 0.6 – 0.69 = Average; 0.7 – 0.79 = Good; >0.8 = Excellent

Additional notes on the ponds across Westfield Common

Pond	Location	New/Existing/enhanced	Design	Permanent or ephemeral	Considered suitable for GCN
1	To the south of Robin Hood Lane on the Common but under private ownership.	Existing (no works planned)	-	Ephemeral	Yes
1a	A small pond to the south of Robin Hood lane in a private garden.	Existing (no works planned)	Garden pond probably lined	Permanent	No
2	In the south east corner of Westfield Common just off Robin Hood Lane.	Enhanced 2017 and 2018	Unlined	Permanent	Yes
3a	At the junction between Robin Hood Lane and New Lane in the south of Westfield Common.	Enhanced 2017/18	unlined	Ephemeral	No
3b	At the junction between Robin Hood Lane and New Lane in the south of Westfield Common.	Lined 2019	Lined	permanent	Yes
4	On the western edge of Westfield Common next to New Road	Enhanced but effectively a new pond 2018	Lined	Permanent	Yes
4a	Just off the driveway which runs from New Road to the Cottages	Enhanced 2017	Unlined	Ephemeral	Yes
5	Between Moor House and Moor Lane	Existing (no works planned)	Unlined	Ephemeral	No
6	Between Moor House and Moor Lane	Existing (no works planned)	Unlined	Ephemeral	No
7	To the south of Moor Lane and east of Rose Bank Cottages	Enhanced 2017 and 2019	Unlined	Permanent	Yes
8	To the south of Moor Lane and east of Rose Bank Cottages	Enhanced 2017	Unlined	Ephemeral	Yes
CWC2	In woodland to the south of Balfour Avenue	New Pond 2020	Lined	Permanent	Yes
SWC7	Between Moor House and Rose Bank Cottages -	New pond 2019	Lined	Permanent	Yes
SWC8	Located to the north of the track leading to Beech Rose Cottage	New Pond 2020	Lined	Permanent	Yes

Pond	Location	New/Existing/enhanced	Design	Permanent or ephemeral	Considered suitable for GCN
SWC9	To the south of Moor House and Rose Bank Cottages -	New pond 2019	Lined	Permanent	Yes
9	To the west of New Lane and South of Moor Lane	Existing (no works planned)	Unlined	Ephemeral	No
9a	Large wet flush behind golf course car park	Existing (no works planned)	Unlined	Permanent	Yes
10	Just off Willow Bank in the north of Westfield Common	Existing	Unlined	Permanent	No
11	Centre of Bonsey Wood – in the Westfield Common	Enhanced 2017/2018	Unlined	Permanent (most years)	Yes
11a	South Bonsey Wood – in the Westfield Common	Enhanced 2017 and 2018	Unlined	Ephemeral	Yes
12	West Bonsey Wood – in the Westfield Common	Enhanced 2017	Understood to be lined	Permanent (most years)	Yes
13	Near to the Westfield doctors surgery.	Existing (no works planned)	Unknown	Permanent	Yes
14	Western edge of Bonsey Wood – in the Westfield Common	Enhanced 2019	Unlined (ditch)	Ephemeral	Yes
NWC4 (11 new)	To the east of pond 11 in Bonsey Wood – in the Westfield Common -	New pond 2018	Unlined	Permanent	Yes
15	No access (no information)	-	-		
16	No access (no information)	-	-		
17	Sutton Golf Course	Existing (no works planned)	Unknown	Permanent	No
18	Sutton Golf Course	Existing (no works planned)	Lined	Permanent	No
19	Sutton Golf Course	Existing (no works planned)	Lined	Permanent	No
20	Sutton Golf Course	Existing (no works planned)	Lined	Permanent	No
21	Residential garden in centre of Sutton golf course	Existing (no works planned)	Lined	Permanent	Yes
22	Residential garden in centre of Sutton golf course	Existing (Works planned to desilt pond in winter)	Lined	Permanent	Yes

Pond	Location	New/Existing/enhanced	Design	Permanent or ephemeral	Considered suitable for GCN
		2021/2022 under SARG supervision			
23	Sutton Golf Course	Existing (no works planned)	Lined	Permanent	No
24	Sutton Golf Course	Existing (no works planned)	Lined	Permanent	No
25	Behind the retirement home off Moor Lane (no access)	-	-		
26	Bonsey Flood pond	Existing pond		Permanent	No

Appendix 4: Newt Survey Results

GCN survey 15th/16st April 2021

Weather: Clear skies, light breeze 12°C/pm and 1°C/am, water temperature 6°C

Pond number	Great Crested Newt (torch)	Great crested newt (traps)	Great Crested Newt (eggs)	Smooth Newt (torch)	Smooth Newt (traps)	Other amphibians	No. of traps used
1			-				10
2	0	0	-	0	0		20
3a	0	0	-	0	0		20
3b	1 Male	0	-	0	1 Female		20
4	0	1 Female	-	0	0		10
11	1 female	2 Male 3 Female	Yes		28 Male 38 Female		50
11 (new)	1 female	1 Male	Yes	2 Male 2 Female	4 Male 3 Female	1 Common Frog	20
11a	0	1 male	Yes	1 Male	2 Male 1 Female	3 Common frog	20
12	0	0	-	0	0		15
14	0	1 Male	-	0	0		15
21	0	-	Yes	-	2 Female		-
22	7 Male 3 Female	-	Yes		0		-

GCN survey 13/14th May 2021

Weather: Overcast, no wind 15°C/pm and 8°C/am, water temp 12°C

Pond number	Great Crested Newt (torch)	Great crested newt (traps)	Great Crested Newt (eggs)	Smooth Newt (torch)	Smooth Newt (traps)	Other amphibians	No. of traps used	eDNA result
1	-	2 Male 2 Female	-	0	0		10	Positive
2	-	1 Male 2 Female	Yes	0	2 Male		20	Positive
3a	0	0		0	0			Negative
3b	0	0		0	0		25	
4	0	0		1 Female	3 Male 1 Female		10	
11	-	9 Male 8 Female			106 Male 36 Female		50	
11 (new)	1 Male			2 Male 2 Female	5 Male 9 female	1 Common frog	20	
11a	1 Juvenile	1 Female		3 Male 5 Female	4 Male 2 Female`		20	
12	0	3 Male	Yes		14 Male 2 Female		15	
14	0	2 Female			4 Male 3 Female		15	
18							-	Negative
21				3 Female			-	
22	2 Female						-	

Appendix 5: eDNA results

Client: James Simpson,
ADAS



ADAS
Spring Lodge
172 Chester Road
Helsby
WAG 0AR

Tel: 01159 516747
Email: Helen.Rees@adas.co.uk

www.adas.uk

Sample ID: ADAS-0905 Condition on Receipt: Good Volume: Passed
Client Identifier: Sutton Golf Course 18 Description: pond water samples in preservative
Date of Receipt: 20/05/2021 Material Tested: eDNA from pond water samples

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	24/05/2021
Degradation Control [§]	Within Limits	Real Time PCR	24/05/2021
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	24/05/2021
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁴ ng/μL) [‡]	4 of 4	Real Time PCR	As above for GCN

Report Prepared by: Dr Helen Rees Report Issued by: Dr Ben Maddison

Signed:

Signed:

Position:

Director: Biotechnology

Position:

MD: Biotechnology

Date of preparation:

25/05/2021

Date of issue:

25/05/2021

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.*

† Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

§ No degradation is expected within time frame of kit preparation, sample collection and analysis.

‡ Additional positive controls (10¹, 10², 10³ ng/μL) are also routinely run, results not shown here.

ADAS eDNA Results Sheet: 1040042-JSimpson (01)

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Client: James Simpson,
ADAS



ADAS
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Tel: 01159 516747
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www.adas.uk

Sample ID: ADAS-0906 Condition on Receipt: Good Volume: Passed
Client Identifier: Bonsey Flood Pond Description: pond water samples in preservative
Date of Receipt: 20/05/2021 Material Tested: eDNA from pond water samples

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	24/05/2021
Degradation Control [‡]	Within Limits	Real Time PCR	24/05/2021
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	24/05/2021
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁴ ng/μL) [#]	4 of 4	Real Time PCR	As above for GCN

Report Prepared by: Dr Helen Rees Report Issued by: Dr Ben Maddison

Signed:  Signed: 

Position: Director: Biotechnology Position: MD: Biotechnology

Date of preparation: 25/05/2021 Date of issue: 25/05/2021

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.*

[†] Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

[‡] No degradation is expected within time frame of kit preparation, sample collection and analysis.

[#] Additional positive controls (10¹, 10², 10³ ng/μL) are also routinely run, results not shown here.

Client: James Simpson,
ADAS



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Sample ID: ADAS-0907 Condition on Receipt: Low Sediment Volume: Passed

Client Identifier: Woking 3A Description: pond water samples in preservative

Date of Receipt: 20/05/2021 Material Tested: eDNA from pond water samples

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	0 of 2	Real Time PCR	21/05/2021
Degradation Control [§]	Within Limits	Real Time PCR	21/05/2021
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	21/05/2021
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁴ ng/μL) [#]	4 of 4	Real Time PCR	As above for GCN

Report Prepared by: Dr Helen Rees Report Issued by: Dr Ben Maddison

Signed:

Signed:

Position: Director: Biotechnology Position: MD: Biotechnology

Date of preparation: 25/05/2021 Date of issue: 25/05/2021

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.*

† Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

§ No degradation is expected within time frame of kit preparation, sample collection and analysis.

#Additional positive controls (10⁴, 10², 10³ ng/μL) are also routinely run, results not shown here.

Client: James Simpson,
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Sample ID: ADAS-0908 Condition on Receipt: Low Sediment Volume: Passed

Client Identifier: Woking Pond 2 Description: pond water samples in preservative

Date of Receipt: 20/05/2021 Material Tested: eDNA from pond water samples

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	21/05/2021
Degradation Control [§]	Within Limits	Real Time PCR	21/05/2021
Great Crested Newt*	2 of 12 (GCN positive)	Real Time PCR	21/05/2021
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁻⁴ ng/ μ L) [‡]	4 of 4	Real Time PCR	As above for GCN

Report Prepared by: Dr Helen Rees Report Issued by: Dr Ben Maddison

Signed:

Signed:

Position: Director: Biotechnology Position: MD: Biotechnology

Date of preparation: 25/05/2021 Date of issue: 25/05/2021

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.*

† Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

§ No degradation is expected within time frame of kit preparation, sample collection and analysis.

‡ Additional positive controls (10⁻¹, 10⁻², 10⁻³ ng/ μ L) are also routinely run, results not shown here.

Client: James Simpson,
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Sample ID: ADAS-0909 Condition on Receipt: High Sediment Volume: Passed

Client Identifier: Woking Pond 1 Description: pond water samples in preservative

Date of Receipt: 20/05/2021 Material Tested: eDNA from pond water samples

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	21/05/2021
Degradation Control [§]	Within Limits	Real Time PCR	21/05/2021
Great Crested Newt*	9 of 12 (GCN positive)	Real Time PCR	21/05/2021
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁴ ng/μL) [‡]	4 of 4	Real Time PCR	As above for GCN

Report Prepared by: Dr Helen Rees Report Issued by: Dr Ben Maddison

Signed:

Signed:

Position: Director: Biotechnology Position: MD: Biotechnology

Date of preparation: 25/05/2021 Date of issue: 25/05/2021

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.*

† Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

§ No degradation is expected within time frame of kit preparation, sample collection and analysis.

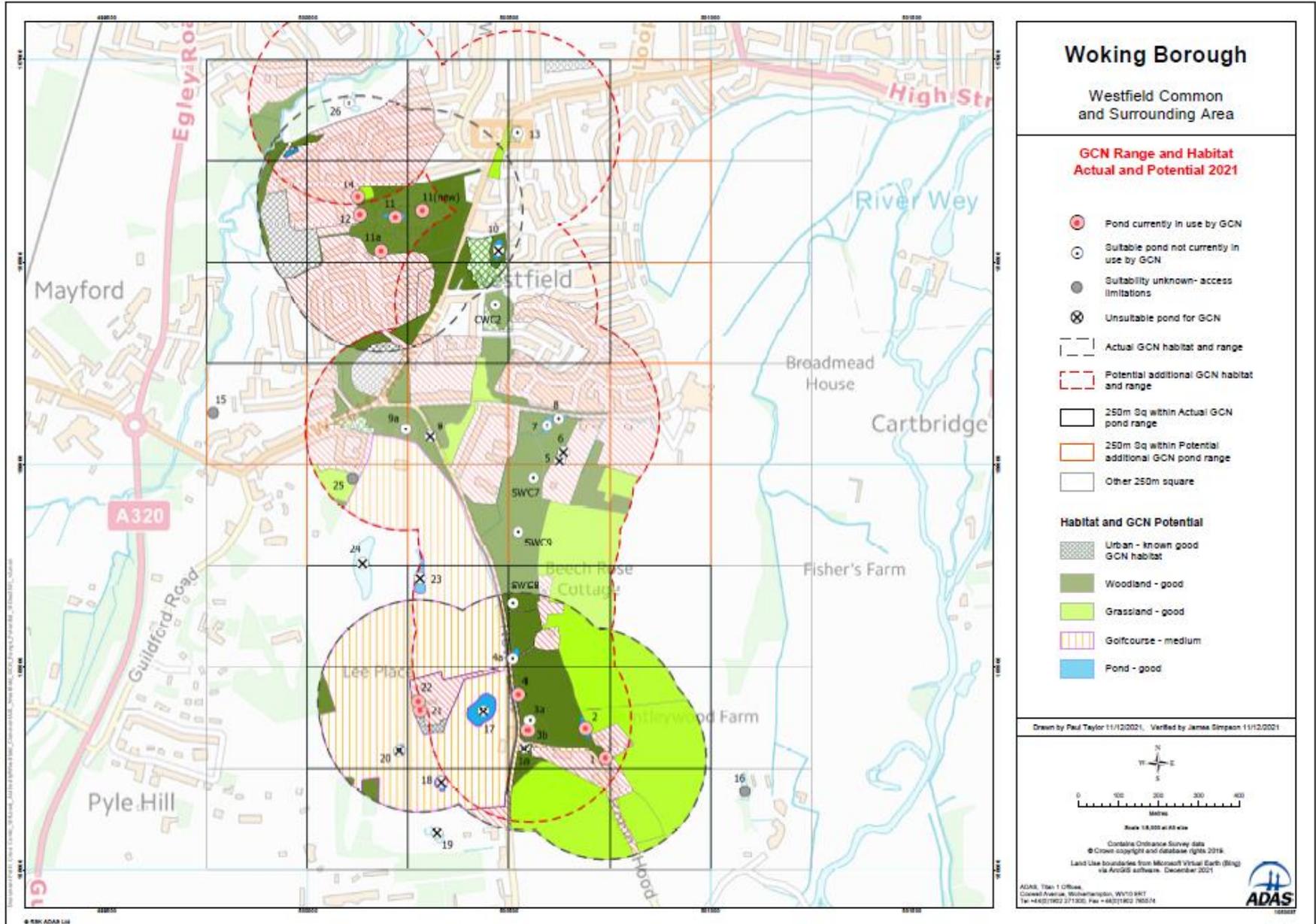
‡ Additional positive controls (10⁻¹, 10⁻², 10⁻³ ng/μL) are also routinely run, results not shown here.

ADAS eDNA Results Sheet: 1040042-JSimpson (01)

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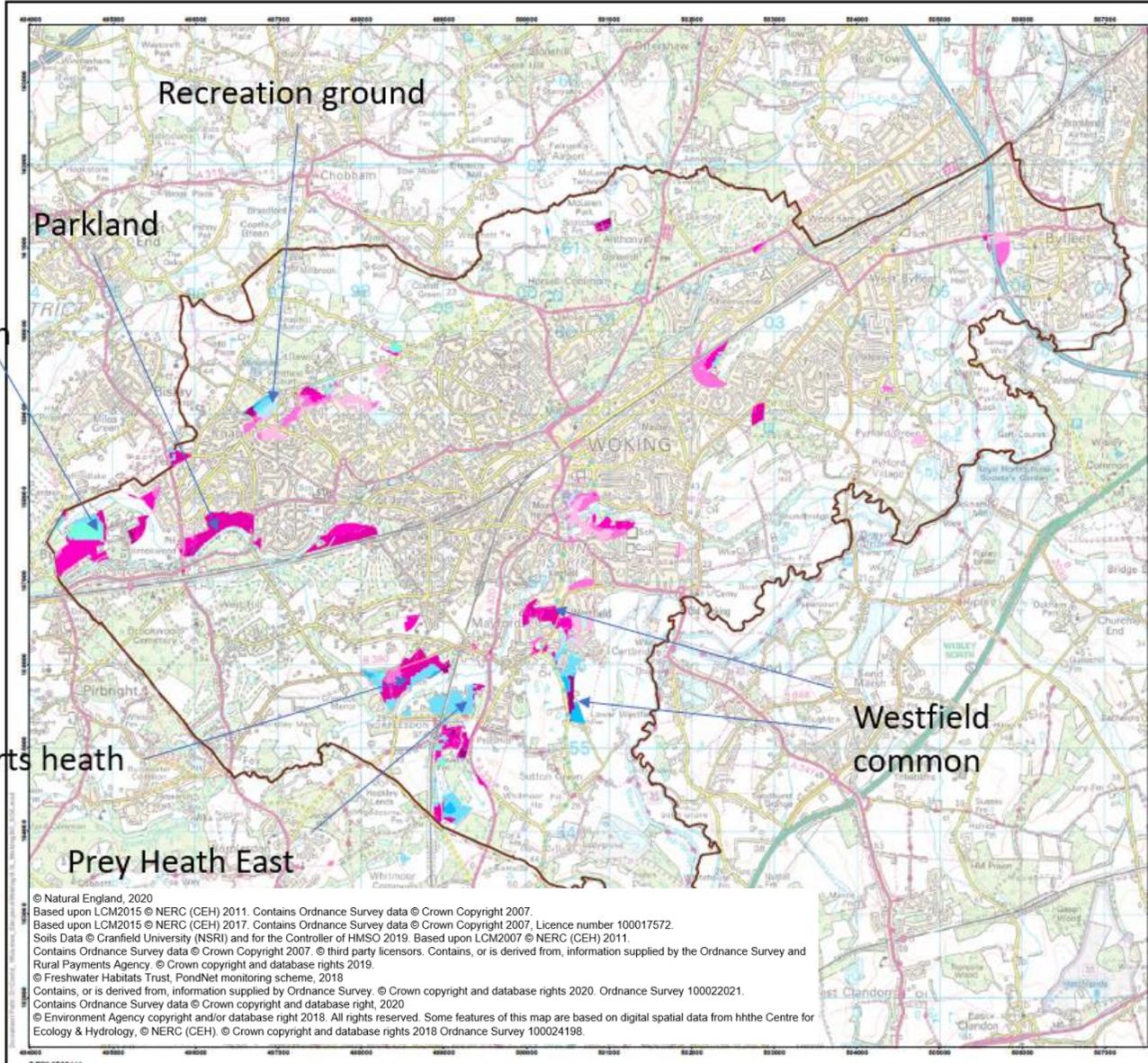
Appendix 6: Plan showing Favourable Reference Values for 2021

See following page



Appendix 7: Strategic Opportunity Areas Plan

See following page



Woking Borough

Great Crested Newts

Strategic Opportunity Areas (SOA) for Great Crested Newts for Land in Woking BC Ownership

Woking Borough boundary

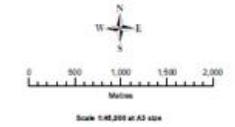
CF, Score



The SOA dataset identifies areas where the addition of new ponds would benefit GCN populations.

Core areas - GCN are predicted to be present
Fringe areas - 250m buffer around core areas

Drawn by Paul Taylor 05/11/2020, Verified by James Dimpson 05/11/2020



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Appendix 8: Photos of strategic sites



Photograph 1. Recreational ground.



Photograph 2. Parkland site showing areas of extensive rough grassland which could be suitable for a pond.



Photograph 3. Parkland site showing a lake with a fishing platform in the foreground.



Photograph 4. Sheets Heath dominated by heather. A priority habitat and would be unsuitable for a new pond.



Photograph 5. Pond on Sheets Heath thought to support palmate newts but potentially too acidic to support GCN.



Photograph 6. Sheets Heath did support areas on the periphery which would be considered suitable opportunities for a new pond.



Photograph 7. Smarts Heath an area supporting a mosaic of acid grassland and heather and is grazed.



Photograph 8. Smarts Heath supported areas similar to those found on Westfield Common with temporary wet depressions that could be turned into ponds. Note the invasive rhododendron in the foreground.



Photograph 9. Prey Heath East had existing temporary wet hollows onsite that could be further managed to provide ponds more suitable to amphibians.



Photograph 10. Prey Heath East has woodland around the perimeter with further depressions suitable to be opened up to provide more permanent ponds.