

Mobuoy Road City Waste, Londonderry



Smooth Newt Survey Report

Department of Agriculture, Environment and Rural Affairs (DAERA)

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GLOSSARY

Acronyms/Abbreviations	Definition
CEMP	Construction Environmental Management Plan
CIEEM	Chartered Institute of Ecology & Environmental Management
DAERA	Department of Agriculture, Environment, and Rural Affairs
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
NIEA	Northern Ireland Environment Agency
PEA	Preliminary Ecological Appraisal

EXECUTIVE SUMMARY

Contents	Summary
Site Location	The 'site' is located at 60 Mobuoy Road, approximately 2.6km north-west of Derry City, County Londonderry and is centred at Irish National Grid Reference C 47863 17655.
Proposals	The proposals involve remediation of the site to improve land and water quality and prevent leachate entering the River Faughan. Site remediation works will potentially involve further ground investigation works, comprising bore holing and trial-pitting, and earthworks causing ground disturbance. All waterbodies on site and associated terrestrial habitats are at risk of being affected or lost by the proposed development.
Scope of this Survey(s)	Traditional surveys (including torching, netting, egg search and refugia search) were undertaken in 2023 of 23 ponds (where accessible, see limitations). This report summarises historical survey data from the site, of relevance to smooth newts, details the findings of the 2023 survey effort and makes preliminary mitigation recommendations for the species.
Results and Evaluation	During the 2022 survey effort, smooth newt were detected in a total of 11 waterbodies on site, including waterbodies 3, 4, 6, 7, 8, 12, 14, 19, 20, 21 and 23. The 2023 survey effort identified smooth newt in just one waterbody on site, waterbody 23.
Recommendations	<p>Recommendations within this report include:</p> <ul style="list-style-type: none"> • The impact assessment is reviewed, and a full newt protection plan is devised following confirmation of works schedule for remediation on site; • A pre-commencement check of the site by a suitably qualified ecologist/ works area prior to any vegetation clearance and ground works; • A CEMP including measures to ensure long-term viability of the smooth newt population is submitted with any planning application for future re-development of the site; • Precautionary working measures are implemented throughout all stages of works to minimise harm to smooth newts and prevent an offence under The Wildlife (Northern Ireland) Order 1985 and The Wildlife (Amendment) (Northern Ireland) Order 1995. This should include retention of waterbodies, and habitat connectivity were

Contents	Summary
	<p>possible and timing of works to minimise risk to smooth newt as a minimum; and,</p> <ul style="list-style-type: none"><li data-bbox="507 367 1406 439">• A licence is sought from NIEA should works require the destruction of any waterbodies found to have smooth newt presence. <p>The site is also recommended to be enhanced for smooth newt where possible, this may include habitat management to improve terrestrial connectivity and / or creation of additional breeding ponds and refugia. This should be designed into any future planning application at the site, following remediation to allow for enhancements to be retained long term.</p>
Conclusions	<p>Provided the mitigation measures within this report are adhered to (including review of impacts, mitigation strategy and licensing requirement following detailed works plans), it is considered that the proposed works can be undertaken lawfully.</p> <p>This report is valid until (March 2024).</p>

1.0 INTRODUCTION

Tetra Tech was commissioned by the Department of Agriculture, Environment and Rural Affairs (DAERA) in June 2023 to undertake updated smooth newt *Lissotriton vulgaris* surveys of the site known as ‘Mobuoy Road City Waste’. This was recommended following the completion of smooth newt surveys in 2022 which confirmed smooth newt presence on-site, as well as good quality habitat for resting and breeding smooth newt.

This report has been prepared by Tetra Tech Consultant Ecologist [REDACTED], BSc (Hons) and the conditions pertinent to it are provided in Appendix A. [REDACTED] has four years ecological survey and report writing experience including surveying for smooth and great crested newt *Triturus cristatus*.

Smooth newt are a protected species, full details of that protection, including types of offences and policy position are provided in Appendix B.

1.1 SITE LOCATION

The ‘site’ is located at 60 Mobuoy Road, approximately 2.6km north-west of Derry City, County Londonderry and is centred at Irish National Grid Reference C 47863 17655 (see Figure 1).

The site consists predominantly of wet woodland, interspersed with marshy grassland strips, scrub and other smaller patches of various habitat types. Three large freshwater lakes exist on-site, along with an extensive network of smaller ponds and waterbodies, fringed with marginal vegetation. The River Faughan and Tributaries Special Area of Conservation/Area of Special Scientific Interest (SAC/ASSI) runs directly adjacent to the west boundary.

1.2 DEVELOPMENT PROPOSALS

The proposals involve remediation of the site to improve land and water quality and prevent leachate entering the River Faughan. Site remediation works will potentially involve further ground investigation works, comprising bore holing and trial-pitting, and earthworks causing ground disturbance. All waterbodies on site and associated terrestrial habitats are at risk of being affected or lost by the proposed development.

1.3 PURPOSE OF THE REPORT

The purpose of this assessment is to:

- Determine the presence or likely absence of smooth newt within the waterbodies surveyed.
- Provide an indicative estimate of the population size-class of smooth newt, if confirmed to be present.
- Determine if any potential impacts on smooth newt are likely to arise from the development.
- Provide preliminary advice and outline strategies to avoid/mitigate/compensate for any likely impacts on smooth newt .

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.

2.0 METHODOLOGY

2.1 HISTORIC SURVEYS

The following reports, previously produced for the site have been reviewed and discussed as appropriate within this report:

- 784-B031879 Mobuoy Road City Waste: Ecological Appraisal (Tetra Tech, 2021)
- 784-B039283 Mobuoy City Waste: Smooth Newt Report (Tetra Tech, 2023)
- 784-B031879 Mobuoy Road City Waste, Londonderry: Smooth Newt Survey Licence Return Report – Revision 2 (Tetra Tech)

2.2 FIELD SURVEYS

2.2.1 Biosecurity

All surveys were conducted in accordance with standard best practice (Tetra Tech, 2023).

2.2.2 Presence / Likely Absence Surveys

All surveys were conducted by the following ecologists with appropriate experience and under the following survey Licensee Nos:

- [REDACTED] Assistant Ecologist with 4 years' survey experience for all UK newt species (Licensee No. 2998), including voluntary work for the Northern Ireland Amphibian and Reptile Group (NIARG).
- [REDACTED] Tetra Tech Project Ecologist with 3 years' smooth newt survey experience (Licensee No. 3154).
- [REDACTED] Tetra Tech Field Ecologist who has relevant survey experience through his degree and training undertaken with Tetra Tech.
- [REDACTED] Tetra Tech Field Ecologist who has relevant survey experience through his degree and training undertaken with Tetra Tech.

The locations of waterbodies present on site are included within Figure 2.

Each waterbody was surveyed four times within the smooth newt survey season (i.e. between mid-March and mid-June) (Gent & Gibson, 2003; NIEA, 2017).

The maximum adult count per night per waterbody, as recorded through a single survey technique, is the number used to inform the population size-class estimate for that waterbody. Where there is a reasonable certainty of a regular interchange of animals between waterbodies (typically those within 250m of each other) counts can be summed across those waterbodies to derive the population size-class of that metapopulation. The populations are then classified as follows:

- Small – for maximum counts up to 10

- Medium – for maximum counts between 11 and 100
- Large – for maximum counts over 100

The dates of the surveys, weather conditions on the day and surveyors which undertook the surveys, are detailed in Table 1.

Table 1: Survey Dates and Weather Conditions

Survey No.	Surveyors	Date	Time		Air Temp. (°C)		Wind Speed	Cloud Cover (%)	Precipitation (%)
			Start	End	Initial	Final			
1	LC/LJ/AF	31.05.23	12:00	15:00	18	13	14mph	60	0
2	LJ/AF	01.06.23	22:00	00:00	14	12	5mph	80	0
3	LC/ZR	05.06.23	22:30	00:30	16	13	9mph	80	0
4	LC/AF	14.06.23	22.20	00.10	19	14	3mph	60	0

Survey methods used included a visual search for individuals by torchlight; an egg search to determine whether smooth newts were breeding in a waterbody (search ceased with the first identification of a smooth newt egg in the waterbody); a net search around the waterbodies' edge to gauge presence/likely absence and to search for newt larvae, and a refuge search.

Torchlight Survey

This technique involves a visual search for individual newts inhabiting each waterbody. High-powered torches are used to search the waterbodies after nightfall. Waterbody perimeters are walked taking care to count all the individuals seen. To maximise the reliability of this technique, all torch surveys are conducted on evenings where the air temperature exceeded 5°C, when newts are generally considered being most active.

Egg Search

Smooth newt eggs are searched for among submerged, floating and other aquatic vegetation. When laying their eggs, smooth newt folds leaves of aquatic plants around the egg, although dead leaves and a variety of artificial materials are also known to be used. This behaviour is exploited to demonstrate that smooth newt are breeding in a particular waterbody. However, egg numbers cannot be used to estimate population size due to predation and high mortality rates. To limit disturbance, this method is ceased as soon as a smooth newt egg has been positively identified in a waterbody.

Net Search

Long handled dip nets are used to sample the area around the waterbodies edge. The netting is conducted in the evening as better results are obtained at night when adult newts are more likely to be in open water. The perimeter of the waterbodies are walked and 15 minutes of netting is undertaken per 50 metres of shoreline as recommended in the Great Crested Newt Mitigation Guidelines (English Nature, 2001). Netting is a good technique for augmenting other surveys and gauging presence/ likely absence; however it is also useful for finding smooth newt larvae during the late summer.

Refuge Search

Smooth newt may rest under refuges such as logs, bark, rocks, rubble and debris. Artificial refuges can be laid out such as carpet tiles and plywood boards to increase the chances of finding newts using on site refuges. In general this method alone is inefficient, therefore it should be used as a supplementary method.

2.3 LIMITATIONS

Due to the late commission for this project, it was not possible to survey during the 'peak period' for smooth newt activity (i.e. mid-April to mid-May), therefore the following results may not be representative of the smooth newt population on-site over the course of the breeding season.

The majority of the smaller ponds had dried out due to a long period of hot, dry weather over the course of the surveys (WB7-9, WB11, WB16-21). By the second survey, WB3 and WB27 had also dried out. WB15 could not be accessed directly for netting although the accessible section of this waterbody (wet ditch) was surveyed by torchlight during each survey. There were also three large lakes on-site (Figure 2). The largest of the three lakes in the north of the site (WB26) is not accessible due to extensive growth of dense scrub and vegetation and was therefore not surveyed. Due to the size of this lake, as well as its fish and waterbird assemblages, it was considered unsuitable for smooth newt due to the high risk of predation. The two smaller lakes on-site (WB24 and 25) were also considered unsuitable due to the presence of fish and waterbird assemblages (mute swan *Cygnus olor*, coot *Fulica atra* and mallard *Anas platyrhynchos* were noted on the first visit). The quarry lake in particular (WB24), which is deep with steep sides and little emergent vegetation for female smooth newts to lay eggs on. Despite this, these two smaller lakes were still subject to torch surveys in 2023, where access allowed. The water in these lakes was murky which meant torch surveys were limited in their effectiveness. Although the relative inaccessibility and murky water presented a limitation to the surveys, this is not thought to be significant due to the general low suitability of these lakes to smooth newt.

The details of this report will remain valid until (**March 2024**), after which the validity of this assessment should be reviewed to determine whether further updates are necessary.

Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or development proposals which this report was based on.

3.0 RESULTS

3.1 HISTORIC SURVEYS

The 2021 Ecological Appraisal (Tetra Tech, 2021) found the site to be suitable to support smooth newt, due to the density of waterbodies present, and habitats suitable to support smooth newt in their terrestrial phase. This included marshy grassland, scrub, woodland and a number of debris piles that provided additional refugia.

Subsequent dedicated smooth newt surveys were undertaken within the 2022 survey season, comprising of five survey visits within the active season. Smooth newt were detected in a total of 11 waterbodies on site, including waterbodies 3, 4, 6, 7, 8, 12, 14, 19, 20, 21 and 23.

It was reasonably assumed that a regular interchange of animals between waterbodies occurred (due to the proximity of the waterbodies to one another) and as such a site wide peak count was calculated, of 51 smooth newts. Whilst population estimates can generally only be made following a minimum of six survey visits (Froglife, 2001), this is indicative of a medium population of smooth newts.

3.2 PRESENCE/LIKELY ABSENCE SURVEYS

Grid references and photographs of each waterbody surveyed are provided in Appendix C along with photographs, see Figure 2 for their location.

A total of 25 waterbodies were surveyed, and smooth newt was recorded in 1 out of the 25 waterbodies (Table 2). Five females and four males (in total, over all four surveys) were documented in WB23, which consisted of an old wheel wash that had filled up with water. These numbers are indicative of a small population size (compared to a medium size in 2022). The presence of smooth newts was not recorded in the remaining 24 waterbodies.

Table 2: Newt count by waterbody

Waterbody (WB)	Refugia Search/Netting (31/05/2023)	Torch/Netting (01/06/2023)	Torch/Netting (05/06/2022)	Torch/Netting (14/06/2023)
1-22	0	0	0	0
23	0	M x 4, F x 4	F x 1	0
24-25	0	0	0	0

During the surveys, several incidental recordings of other species were also noted within several waterbodies (Table 3). This information is considered relevant as it provides further indication of the quality of the habitats for other aquatic life.

Table 3: Other species recorded during surveys

Waterbody (WB)	Common frog <i>Rana temporaria</i>	Fish	Aquatic invertebrates
1	Tadpoles	Stickleback (Gasterosteidae)	/
4	Tadpoles	/	/
14	Froglets and tadpoles	/	Water beetles (Coleoptera)
15	Tadpoles	/	/
23	Tadpoles	/	/
24-25	Tadpoles	Stickleback (Gasterosteidae)	/

3.3 SUMMARY OF RESULTS

Based on the above results, the following has been confirmed:

- Smooth newts were recorded in 1 out of 25 waterbodies surveyed (WB23)
- The peak count of 8 adult smooth newts recorded across all waterbodies (by torchlight surveys).
 - This is indicative of an overall population size-class of small (compared to medium in 2022)

4.0 DISCUSSION

Field survey's undertaken in both 2022 and 2023 have confirmed that smooth newts are present within site.

A precautionary approach is recommended that assumes presence in all ponds previously found to be positive for smooth newt (despite which year they were identified) and extends any precautionary working measures (see Section 4.2.1, below) to all waterbodies and suitable terrestrial habitat on site. This is due the proximity and connectivity of the waterbodies to one another as smooth newts being a mobile species, that are able to disperse between waterbodies. This is also due to the limitation of hot weather causing waterbodies to dry during the 2023 surveys.

4.1 IMPACTS

Current development proposals are for remediation works at the site, which may include bore hole drilling, trial pitting and earthworks.

Based on the above, adverse effects on smooth newt are anticipated through **loss of habitat, severance of connectivity, killing and injury and disturbance** during the remediation phase (see Appendix B for detailed legislation).

4.1.1 Loss of Habitat and Connectivity

Specific extent and locations of habitat loss is not yet available however it is anticipated that at least some waterbodies and / or terrestrial habitat will require removal to facilitate the remediation works . This has the potential to reduce the available habitat resource, as well as sever dispersal routes.

4.1.2 Killing and Injury

In the absence of mitigation, accidental killing and injury of smooth newts is possible via entrapment in excavations, as well as collision or crushing from vehicles and machinery on site.

4.2 MITIGATION

Ground investigation works have previously been undertaken, under advice for precautionary working measures for smooth newts, as provided within the Ecological Constraint's Advice Document (Tetra Tech, 2022). A detailed works schedule for the proposed subsequent remediation was not available at the time of writing this report . As such it is recommended that this impact assessment is reviewed, and a newt protection plan devised when such information is available.

Similarly, once final site design is known, a Construction Environment Management Plan (CEMP) will be drafted and submitted as part of the planning application for re-development. This CEMP should include precautionary measures carried out to ensure the long-term viability of the smooth newt population at the site.

At this time, a pre-commencement check of the site for smooth newts is recommended immediately prior to any vegetation clearance or ground works. Precautionary working methods are also required, during remediation works.

4.2.1 Precautionary Working Measures

The mitigation hierarchy principles are:

- Avoidance – to avoid adverse effects as far as possible by designing out or using preventative measures during the construction process thus resulting in an environmental effect of neutral significance.
- Reduction – to minimise adverse effects as far as possible.
- Compensation – involves measures of the same value to off-set the impact.

Based on the above principals, the following mitigation measures are recommended to be applied for the site as a minimum:

- Retain all utilised waterbodies where possible; if this is not possible then a licence application and appropriate mitigation is likely to be necessary (see Section 4.2.2);
- Retain habitat connectivity; and,
- Organising remediation times to avoid times where newts are particularly at risk i.e. February to June. If works are to commence outside of this period, extra precautionary measures will need to be taken to avoid destruction of winter hibernacula. A plan or map of breeding waterbodies and hibernacula sites can be provided to those on site.

Additional reasonable avoidance measures for smooth newts are included in Table 7 below, it is recommended that these measures are implemented as part of the newt protection plan for the remediation works.

Table 1 Suggestions for Reasonable Avoidance Measures for works with the potential to affect smooth newt

Project element	Suggestions for avoidance measures
Location & Layout	<p>(a) Locate works areas as far as possible from potential breeding ponds and high -quality terrestrial habitat.</p> <p>(b) Locate in areas of lowest suitability to support smooth newt in their terrestrial phase, and avoid further fragmentation of suitable habitat.</p> <p>(c) Locate on hard, compacted ground with few fissures.</p> <p>(d) Design layout so that any hard landscaping is as far as possible from ponds, with retained habitat and soft landscaping toward ponds.</p>
Timing & duration	<p>(a) Works should avoid hibernation season (November – February) in order to avoid causing accidental killing or injury of hibernating smooth newts</p>
Construction methods and special precautions	<p>(a) Backfill trenches and other excavations before nightfall or leave a ramp to allow newts to easily exit.</p> <p>(b) Raise stored materials (that might act as temporary resting places) off the ground, e.g. on pallets.</p>

- | | |
|--|---|
| | (c) should any pipelines be planned for installation on site, use directional drilling to cross areas of core habitat and dispersal routes.
(d) Avoid installing structures that act as barriers close to ponds or include gaps at ground level where walls or fences are unavoidable. |
|--|---|

Note: where a smooth newt is discovered during works completed under RAMs, the works must cease immediately, and advice then sought from Ecologist / NIEA Wildlife Team.

4.2.2 Licensing

If loss of a breeding waterbody occurs, any newts present will require translocation under licence. Licences are granted by the NIEA Wildlife team and may require artificial pond creation (depending on the scale of impact of the project).

4.3 ENHANCEMENT

It is recommended that the site is enhanced for smooth newt where possible. This enhancement should be designed into any subsequent planning application, following the remediation of the site, and be designed to be retained post construction. Methods to enhance the site for smooth newts include habitat management to increase connectivity between waterbodies and suitable terrestrial habitat, additional pond creation and creation of refugia for hibernating and sheltering individuals.

Refugia can usually be created using site won materials such as retained brash from vegetation cutting, hardcore from site clearance, however any works and materials recovery on this site must only be completed in accordance with the sites CEMP/ biosecurity procedure and with consideration for the ongoing remediation works and possible contaminants.

5.0 REFERENCES

- Tetra Tech. (2021). *784-B031879 Mobuoy Road City Waste: Ecological Appraisal* .
- Tetra Tech. (2022). *Mobuoy Road City Waste Ecological Advice Document - Version 2* .
- Tetra Tech. (2023). *784-B039283 Mobuoy City Waste: Smooth Newt Report - Revision 2* .
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- English Nature (2001) *Great Crested Newt Mitigation Guidelines*, Peterborough.
- Froglife (2001) *Great Crested Newt Conservation Handbook*, Froglife, Halesworth, Suffolk.
- Gent, T. & Gibson, S. (2003) *Herpetofauna Workers' Manual*. JNCC, Peterborough.
- Herpetological Conservation Trust (2008) *National Amphibian and Reptile Recording Scheme*.

Oldham, R.S.; Keeble, J.; Swan, M.J.S. & Jeffcote M. (2001) Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*), *The Herpetological Journal* 10 (4), 143-155

FIGURES

Figure 1 – Site Location Plan

Figure 2 – Water Body Location Plan and Survey Results



Site Location Plan

Mobuoy Road City Waste



DAERA

Legend

 Site boundary

Notes:



Drawn by: 
Checked by: 
Office: Southampton

Figure No. 1
Revision No. A

0 100 200 300 400 500 Meters
Scale 1:15,000 @A3

09 June 2022
NGR: 64188E 580623N

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Hedge End
Southampton
Hampshire, SO30 2AF



Smooth Newt Survey Results

Mobuoy Road City Waste



DAERA

Legend

- Site boundary
- Waterbodies
- Smooth Newts absent
- Smooth Newts present

Notes:

Drawn by: [Redacted]
 Checked by: [Redacted]
 Office: Southampton

Figure No. 2
 Revision No. A

0 100 200 300 Meters 08 December 2023
 Scale 1:6,000 @A3 NGR: 247759E 417922N

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APPENDICES

APPENDIX A: REPORT CONDITIONS

This Report has been prepared using reasonable skill and care for the sole benefit of Department of Agriculture, Environment and Rural Affairs (DAERA) (“the Client”) for the proposed uses stated in the report by Tetra Tech Consulting (Northern Ireland) Limited (“Tetra Tech”). Tetra Tech exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder’s permission.

No liability is accepted or warranty given for; unconfirmed data, third party documents and information supplied to Tetra Tech or for the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report. Tetra Tech does not purport to provide specialist legal, tax or accounting advice.

The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections'. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The “shelf life” of the Report will be determined by a number of factors including; its original purpose, the Client’s instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.

APPENDIX B: LEGISLATION & POLICY

Wildlife (Northern Ireland) Order 1985 (as amended)




The smooth or common newt (*Lissotriton vulgaris* formerly *Triturus vulgaris*) is the only species of newt found in Northern Ireland. They are protected under Article 10 of the Wildlife (Northern Ireland) Order 1985 (as amended). It is an offence to:




- intentionally or recklessly kill, injure or take a newt; or
- intentionally or recklessly damage or destroy, or obstruct access to, any structure or place that newts use for shelter or protection; or
- intentionally or recklessly damages or destroys anything which conceals or protects any such structure; or
- intentionally or recklessly disturbs a newt while it is occupying a structure or place which it uses for shelter or protection




Planning Policy Statement 2, Natural Heritage, NH2 and the Single Planning Policy Statement




Planning Policy Statement 2, Natural Heritage, NH2 and the Single Planning Policy Statement states that development proposals shall not harm a protected species. The policy indicates that development proposals are required to be sensitive to all protected species and sites and designed to protect them, their habitats and prevent deterioration and destruction of their breeding sites or resting places.



APPENDIX C: WATERBODY LOCATIONS AND PHOTOGRAPHS




Waterbody No.	OS grid Ref.	Photograph of pond
1	C 47947 17618	
2	C 47819 17975	
3	C 47853 18036	



4	C 47881 18045	
5	C 47916 18069	
6	C 47945 18098	

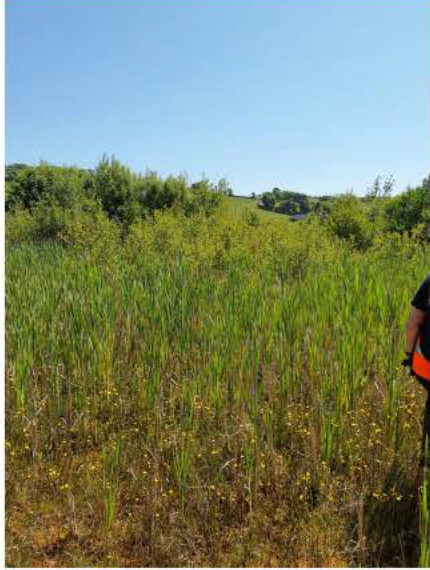

7	C 47734 18009		
8	C 47762 18103		
9	C 47710 17907		

10	C 47674 17908	
11	C 47672 17936	
12	C 47654 17677	

13	C 47647 17588		
14	C 47632 17572		
15	C 47660 17566		

16	C 47601 17520	
17	C 47519 17350	
18	C 47693 17585	

19	C 47838 17624	 A photograph showing a person wearing a blue and orange safety vest standing in a field of tall, green reeds. The person is positioned on the right side of the frame, partially obscured by the reeds. The background shows a line of trees under a clear blue sky.	
20	C 47839 17635	 A photograph of a field with a mix of green reeds and grasses. The foreground is dominated by shorter, drier-looking vegetation, while the background features taller, greener reeds and a line of trees under a clear blue sky.	
21	C 47818 17658	 A photograph showing a field of reeds and grasses. The foreground is a mix of green and brown vegetation, with a dirt path visible. The background consists of a dense line of trees under a clear blue sky.	

22	C 47801 17627	
23	C 47797 17679	
24	C 48040 18135	No photo available.
25	C 47934 18199	No photo available.
26	C 47631 18502	No photo available.

27	C 47528 17442		
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