



Competency Standard for Great Crested Newt Survey, Mitigation and Management

December 2021

Acknowledgements:

Development of this Competency Standard was informed by the Ecological Competences: Skills and Process document developed by the team at Atkins (2019),

Many thanks to those who contributed to the development of this Standard: Neil Madden (Arcadis); Luke Gorman (Atkins); Vicky Hollands (Mott MacDonald); Ursula Digby (WSP); James Hildreth (RSK Biocensus); Lorraine Woolley (Mott MacDonald); Jenny Singh (Ove Arup); Rachel Kerr (TetraTech).

Competency Standard for Great Crested Newt Survey and Mitigation

Notes:

- a) 'Capable' level requires achievement of all criteria for both 'basic' as well as 'capable'; 'accomplished' requires achievement of all criteria for all levels
 b) 'Experience' means that you have done so on numerous occasions

All practitioners should have knowledge and understanding of:			
Great crested newt ecology and behaviour	1) Terrestrial/aquatic life stages and the timing for breeding/hibernation; 2) Typical dispersal distances and time of year of migration/dispersal; 3) Habitat and micro-habitat requirements and competition for resources; 4) Population structure and dynamics and how this may vary in different landscapes; 5) Egg (including egg-laying) and larval development.		
Distribution	UK distribution, including strong hold areas and where to expect to find them in lower/higher numbers.		
Conservation status	Conservation status with reference to constituent parts of UK and Europe as a whole. Understanding of the key threats to the species and the reasons for their decline (e.g. habitat loss, habitat fragmentation, fish introduction, climate change).		
Health and safety	Health and safety issues associated with great crested newt survey including identifying safe survey techniques and those related to survey specific risks (e.g. dusk surveys, working in proximity to water, Weil's disease, ticks). Able to plan and undertake work in a safe manner.		
Biosecurity	Appropriate biosecurity risk, precautions and procedures when surveying and handling, including standard measures such as disinfecting traps and other survey equipment. Undertake, as standard, appropriate biosecurity measures and personal hygiene precautions relating to working near water and working with animals. Able to undertake the 'check, clean, dry' methodology and has an awareness of aquatic invasive species and amphibian disease.		
Key References and Reading List	See relevant section of CIEEM's Good Practice Guidance for Habitats and Species V3 (May 2021)		
Competency Standards			
Activity	Basic	Capable	Accomplished
Policy and Legislation (P1.1)	Aware of key legislation and a basic understanding of the different levels of protection afforded by the legislation. Aware of when survey licences/development licences are required	Knowledge and understanding of legislation and offences. Can correctly interpret the legislation in regard to specific scenarios (e.g. site work), and able to provide accurate advice. Understands when habitats	Is regularly approached for advice and may provide training to other ecologists on policy and legislation in respect to great crested newts. Experience

	(can provide examples of typical licensable and non-licensable development activities). May have been an accredited agent for a licence.	regulations assessment is necessary (where a qualifying Annex II species). Experience of successful licensing application processes and aware of the three tests/considerations necessary to obtain a licence and the available licensing approaches (conventional and (in England only) Low Impact Class Licences, District Licensing, and Defra's Licensing Policies). Has a good understanding of what is an appropriate level of mitigation. Qualified to hold a survey licence.	with managing the risks to landowners, developers and contractors arising out of environmental, legal and policy requirements. Has in-depth knowledge of the different approaches to licensing where relevant, e.g. where Low Impact Class Licences, district licensing, or Defra's Licensing Policies may be applicable in England. Holds a survey licence and may hold a great crested newt mitigation licence. Able to provide advice to other ecologists and lead consultation with relevant authorities.
Survey (S1.1)	Aware of sources of information on known occurrence and distribution of great crested newts (including local biological/environmental records and local contacts/amphibian groups).	Experience of obtaining and interpreting desk study information as part of standard, non-complex assessment. Awareness of when data is sensitive and, where client-owned, that permission is granted before release to third party or used in publication.	N/A
Survey (S1.2)	Aware of typical methods used to survey (such as habitat suitability index (HSI), eDNA sampling, bottle trapping, torch survey, netting and egg searching), survey objectives, and a basic understanding of appropriate survey seasons and suitable weather conditions for survey. Has assisted on surveys under supervision.	Experience of leading surveys for great crested newts. Consistently demonstrates the correct identification of UK native newts and non-native newts at all life stages. Able to effectively design and coordinate surveys suitable for a specific outcome, e.g. mitigation licence application.	Is regularly approached for advice and may provide training to other ecologists on undertaking great crested newt surveys. Able to design and coordinate effective surveys for major development projects or large conservation projects.

	<p>Aware of survey bias and limitations and the range of factors that affect survey and may lead to these (e.g. current, previous and extreme weather conditions, time of year, geographical location, access limitations, turbidity of water, vegetation cover, false negatives/positives).</p> <p>Able to identify and distinguish between all native UK newts (i.e. great crested newt, palmate and smooth newts) and aware of how to correctly identify non-native newts and the importance of doing so.</p>	<p>Awareness of what effect limitations, such as adverse weather conditions and access limitations can have on surveys.</p> <p>Understands survey bias when setting out survey limitations.</p>	<p>Able to provide quality assurance for more complex surveys.</p>
Impact assessment (A4)	<p>Must have achieved at least 'Capable' level in relation to 'Survey'.</p> <p>Able to accurately interpret results, with guidance from a supervisor, to form a sound judgement or hypothesis of great crested newt use of a site whilst acknowledging limitations and uncertainties.</p>	<p>Able to accurately interpret results to form a sound judgement or hypothesis of great crested newt use of a site whilst acknowledging limitations and uncertainties.</p>	<p>Must have achieved at least 'Accomplished' in relation to 'Survey'.</p> <p>Able to accurately interpret results relating to major development-projects or large-scale conservation projects impacting more than one great crested newt population, to form a sound judgement or hypothesis of site(s) use whilst acknowledging limitations and uncertainties.</p> <p>Is regularly approached for advice and may provide training to other ecologists.</p>
Mitigation design (M2)	<p>Aware of standard mitigation techniques and when they could be used.</p>	<p>Able to clearly explain the different approaches to mitigation and licensing, and design an appropriate mitigation solution for the lifetime of the project.</p>	<p>Must have achieved at least 'Capable' level in relation to 'Implementing effective mitigation'.</p>

			Has experience of leading on the implementation of mitigation strategies for multiple schemes. Able to design appropriate mitigation solution for large/complex project affected multiple populations. Is regularly approached for advice and may provide training to other ecologists.
Implementing effective mitigation (M3)	Must have achieved at least 'Capable' level in relation to 'Survey'. Understands standard development licence requirements, including timing of development works, mitigation techniques, welfare/safety issues and habitat creation. May have assisted mitigation implementation under supervision.	Experience of overseeing effective mitigation implementation, including precautionary working methods, destructive searches, habitat manipulation, translocation and habitat creation. Knowledge of when to curtail or modify mitigation technique due to unsuitable weather, predation, welfare of target and non-target species, etc. May have been named as an accredited agent, or been the named ecologist, on a development licence.	Provides advice and training to other ecologists on mitigation implementation.
Implementing effective mitigation (M3) Handling and welfare	Able to safely handle great crested newts under supervision.	Able to safely handle great crested newts and other amphibians, accurately sex them, and identify signs of disease, whilst ensuring their welfare. Awareness of SNCB procedures for reporting any accidental deaths or injury during surveys.	Provides advice and training to other ecologists in handling.
Advising on management (M1)	Aware of basic habitat requirements (aquatic and terrestrial), standard management techniques and when they could be used.	Able to clearly explain different approaches to habitat management, the rationale behind them and with SMART objectives.	Able to design appropriate management regime in complex cases, with SMART objectives. Is regularly approached for advice

			and may provide training to other ecologists.
Interpretation and evidence-based reporting (SM3)	Aware of sources of information on known occurrence and distribution of great crested newts (including local biological/environmental records and amphibian groups). Able to obtain and interpret metadata under supervision and report accurately, including population size class estimates, whilst acknowledging limitations and uncertainties.	Able to obtain and interpret metadata as part of standard, non-complex assessment, including population size class estimates with an understanding of metapopulation ecology. Able to interpret results to form a sound judgement or hypothesis of habitat/site use whilst acknowledging limitations and uncertainties.	Able to interpret metadata as part of a non-standard, complex assessment including description of perceived metapopulation dynamics. Leads and advises others on collection and interpretation of data from all relevant available sources. Demonstrates detailed understanding of data limitations and assessment of risk of false negatives.