



# Competency Standard for Water Vole Survey, Mitigation and Management

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## **Acknowledgements:**

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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

<b>All practitioners should have knowledge and understanding of:</b>	
Water vole ecology and behaviour	<p>Understanding of:</p> <ol style="list-style-type: none"> <li>1) Habitat requirements and preferences.</li> <li>2) Population structure and dynamics and how this may vary in different landscapes.</li> <li>3) Breeding season and typical reproduction rates.</li> <li>4) Wintering behaviour.</li> <li>5) Diet.</li> <li>6) Approximate territory ranges/sizes and territorial interactions by males and females.</li> <li>7) Typical dispersal distances and time of year of dispersal.</li> <li>8) Typical life expectancy.</li> <li>9) Range of predators and anti-predation behaviours; mink ecology, behaviour and distribution, adaptations to predating water voles, and how this affects water vole populations.</li> </ol>
Distribution	<p>Knowledge of UK distribution, including an understanding of which parts of the UK support extensive populations, which parts have small or vulnerable colonies. Understanding of the importance of knowing where there have been local extinctions and where there have been re-introductions and awareness of how to source this information in relation to a specific project or area.</p>
Conservation status	<p>Knowledge of conservation status with reference to constituent parts of UK and Europe as a whole. Understanding of the key threats to water voles and the reasons for their decline.</p>
Health and safety	<p>Knowledge and understanding of health and safety issues associated with these surveys including identifying safe survey techniques such as using boats, waders etc. Able to recognise other safety issues associated with working by/ in water - e.g. water level, flow, silt, risk of leptospirosis etc. Able to plan and undertake work in a safe manner incorporating appropriate personal hygiene measures.</p>
Biosecurity	<p>When undertaking surveying and handling water voles awareness of appropriate biosecurity measures for self and other surveyors including cleaning and disinfecting equipment before deploying, making sure that mink traps are washed, clean and dried before moving to another area, etc. Awareness of aquatic non-native species. Undertake as standard appropriate</p>

	biosecurity measures (use DEFRA-approved disinfectants) relating to working near water (both still and flowing) and working with animals. Able to undertake the 'check, clean, dry' methodology.		
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)	Aware of key legislation (WACA) and level of protection afforded to the species. Aware of local assessments for the species or introduction. Aware of licences available for water voles and displacement licence issues. May have been an accredited agent for a licence.	Good knowledge and understanding of legislation and offences (capture, kill, injure, damage, destroy or obstruct access to any structure or place used for shelter or disturb whilst occupying a place of shelter etc.). Knowledge of the incidental result defence, water vole conservation licences and experience of successful licensing application processes. Can correctly interpret the legislation in regard to specific scenarios (e.g. site work) and is able to provide accurate advice. Consistently able to suggest correct licence route for a project.	Is regularly approached for advice and may provide training to other ecologists on policy and legislation in respect to water voles. Has in-depth knowledge and experience of water vole licences and holding licences, including a displacement class licence.
Survey (S1.1)	Aware of sources of information on known occurrence and distribution of water voles (including local biological/environmental records and local contacts/otter/mammal group).	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)	Knowledge of when water vole surveys can be carried out (seasonal restrictions and weather conditions, water levels etc.) and an understanding of geographical context. Knowledge of main survey methods used to survey for water voles. Has assisted on surveys under supervision.	Experience of leading surveys for water voles. Consistently demonstrates the correct identification of water vole field signs. Able to effectively design and coordinate surveys suitable for a specific outcome e.g. licence application.	Is regularly approached for advice and may provide training to other ecologist on undertaking water vole surveys and identification of field signs. Regularly designs and coordinates effective surveys for major development projects

	<p>Aware of key field signs for identification of water voles.</p> <p>Able to identify signs under supervision.</p> <p>Aware of potential issues with identification of water voles and other commonly encountered species.</p> <p>Aware of the need to record when uncertain and collect scale images or field signs when appropriate for verification later.</p> <p>Aware of how to correctly identify mink field signs and the importance of doing so.</p>	<p>Awareness of what effect limitations, such as adverse weather conditions washing away signs, access limitations and effect population dynamics have on visibility of field signs.</p> <p>Understands survey bias when setting out survey limitations..</p>	<p>or large catchment-based conservation projects.</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 water vole use of a site based on site value whilst acknowledging limitations and uncertainties.</p>	<p>Able to accurately interpret results to form a sound judgement or hypothesis of water vole use of a site based on local population distribution, trends and vulnerabilities in addition to site value, whilst acknowledging limitations and uncertainties.</p>	<p>Must have achieved at least 'accomplished' in relation to 'Survey'.</p> <p>Accurately interprets results relating to major development-projects impacting more than one water vole population to form a sound judgement or hypothesis of water vole use of the site(s) whilst acknowledging limitations and uncertainties.</p>
Mitigation design (M2)	<p>Aware of standard avoidance and mitigation techniques, such as siting works to avoid burrows, safe working distances from burrows and seasonal timing of works to minimize disturbance, and when they could be used.</p>	<p>Designs appropriate mitigation in standard non-complex cases, including timing of development works, protective fencing, displacement, and trapping.</p> <p>Good knowledge of the limitations of trapping and displacement, and able to select the appropriate option in different scenarios.</p>	<p>Must have achieved at least 'capable' level in relation to 'Implementing effective mitigation'.</p> <p>Designs appropriate mitigation in non-standard and complex cases.</p>

		Demonstrates understanding of existing limitations on water vole populations and address these through mitigation. Able to clearly explain the licensing requirements of different mitigation options to others, the need to achieve conservation benefits and the best delivery methods.	
Implementing effective mitigation (M3) Displacement	Must have achieved at least 'capable' level in relation to 'Survey'. Understands licence requirements of displacement. Will have assisted with overseeing displacement, including destructive searches, under supervision.	Experience of overseeing displacement, including destructive searches.	Is regularly approached for advice and may provide training to other ecologists in relation to undertaking displacement operations.
Implementing effective mitigation (M3) Trapping	Must have achieved at least 'capable' level in relation to 'Survey'. Aware of live trapping procedures and welfare/safety issues including safe and effective positioning and operation of traps. May have assisted with trapping under supervision. Aware of the use of mink rafts for monitoring and capture of mink. Able to check mink rafts for evidence of mink.	Experience of the safe design and installation of effective exclusion fencing in trapping projects. Experience of setting and rebaiting traps and handling water voles in a range of situations, with appropriate consideration of welfare/safety issues. Knowledge of when to curtail trapping for bad weather, predation etc. Competent to be named as an accredited agent, or been the named ecologist, on a trapping licence. Able to handle live water voles safely and accurately record biometric data. Able to weigh, identify signs of disease, sex water voles and their breeding condition and humanely mark/tag water voles.	Has been the named ecologist on a trapping licence. Has extensive experience of trapping and handling in multiple situations and supervising others. Has extensive knowledge of water vole husbandry whilst in captive care and advises others. Is regularly approached for advice and may provide training to other ecologists.
Advising on management (M1)	Able to provide instruction, guidance and supervision to contractors on site according to method statement. Has basic knowledge	Experience of designing site-specific management plans, planting regime and methods to improve bank suitability and	Is regularly approached for advice and may provide training to other ecologists on

	of habitat requirements for water voles e.g. favourable vegetation ; bank management; control of predators. Able to monitor for effectiveness and recommend further actions if management has not been a success.	water quality. Able to provide advice on additional measures if results show that management is not working.	undertaking habitat management operations across complex sites.
Interpretation and drawing evidence-based conclusions.(SM3)	Able to obtain and interpret metadata information under supervision and report accurately whilst acknowledging limitations and uncertainties.	Able to interpret results to form a sound judgement or hypothesis of water vole use of a habitat/ site whilst acknowledging limitations and uncertainties.	Able to obtain and interpret metadata information as part of a non-standard, complex assessment. Able to interpret results to form a sound judgement or hypothesis of water vole use of a habitat/ site whilst acknowledging limitations and uncertainties for complex and non-standard scenarios.