





National Water Vole Database and Mapping Project

PART 2: Maps 2005-2015



Catherine McGuire
June 2017



Acknowledgements

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Updating the project would not be possible without the time and dedication of the Local Environmental Records Centres, Wildlife Trusts, and other organisations who freely contribute their records to the project each year. Special thanks goes to the many volunteers involved in surveying and collating data, as well as the countless members of the public who continue to send their water vole and mink sightings to LERCs, Wildlife Trusts, PTES and other dedicated water vole recording schemes. All play an integral part in the project by providing the evidence we need to assess the state of the UK water vole population.

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The maps are free to download, but please credit the National Water Vole Database & Mapping Project 2017 in any published material arising from your use of the maps. Please inform Hampshire & Isle of Wight Wildlife Trust if you use or cite the project report or outputs so we can better understand how the project aids water voles conservation.

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No part of this document may be reproduced without permission. Information contained in this report is intended for the Environment Agency, the Royal Society of Wildlife Trusts, the UK Water Vole Steering Group, and data providers to the project. Requests for the raw data from which the Alert Maps are derived should be directed to the relevant Local Biological Records Centre. A GIS file of the derived alert layers and bespoke mapping services are available from Hampshire & Isle of Wight Wildlife Trust on request; a fee may be charged for this service. The maps and further copies of this document may be downloaded from the project website: www.wordpress.thewatervoleproject.co.uk. Please contact the Project Officer: Catherine.McGuire@hiwwt.org.uk for any queries relating to data or mapping.

Document Control

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1. INTRODUCTION

This document is Part 2 of the National Water Vole Database & Mapping Project 2006-2015 and comprises the Guide to Using the Distribution and Alert Maps, followed by the maps themselves.

The document and maps should be read in conjunction with Part 1 of the National Water Vole Database & Mapping Project 2006-2015.

2. GUIDE TO THE USE OF THE DISTRIBUTION AND ALERT MAPS

The following tables explain the uses and limitations of the project maps:

Table 1: UK Water vole distribution maps: quick guide

Table 2: UK American Mink distribution maps: quick guide

Table 3: Water vole alert maps: quick guide

Table 4: Water vole local key area maps: quick guide

Table 5: Water vole regional key area maps: quick guide

Table 1: UK Water vole distribution maps: quick guide

Map title	Page	Resolution	Display format	Uses	Caution
UK- Water vole presence all records (1861-2012)	8	Derived from records ≥ 100m resolution	Dots	For: -providing overview of distribution across UK since records began -helping to plan further survey/ research at national level.	Does not: -purport to capture all areas historically or currently occupied by water voles (to an extent reflects recorder effort) -indicate abundance -show status over time.
UK- Water vole presence all records (1861-2011)	9	Derived from records ≥ 1km resolution	10km squares	For: -providing overview of distribution across UK since records began -reporting against UK BAP targets -helping to plan further survey/ research at national level.	Does not: -purport to capture all areas historically or currently occupied by water voles (to an extent reflects recorder effort) -indicate abundance -show status over time.
UK- Water vole presence (2008-2012)	10	Derived from records ≥ 100m resolution	Dots	For: -providing overview of distribution across UK over the last 5 years -helping to plan further survey/ research at national level.	Does not: -purport to capture all areas historically or currently occupied by water voles (to an extent reflects recorder effort) -indicate abundance -show status over time.
UK- Water vole presence (2008-2012)	11	Derived from records ≥ 1km resolution	10km squares	For: -providing overview of distribution across UK over the last 5 years -reporting against UK BAP targets -helping to plan further survey/ research at national level.	Does not: -purport to capture all areas historically or currently occupied by water voles (to an extent reflects recorder effort) -indicate abundance -show status over time.
UK- Water vole absence all records (1861-2012)	12	Derived from records ≥ 100m	Dots	For: -indicating where absence recorded during survey.	Does not: -indicate areas where water voles have been absent historically or are currently absent.
UK- Water vole absence (2008-2012)	13	Derived from records ≥ 100m	Dots	For: - indicating where absence recorded during survey.	Does not: -indicate areas where water voles have been absent historically or are currently absent.

Table 2: UK American Mink distribution maps: quick guide

Map title	Page	Resolution	Display	Uses	Caution
map title	1 age	Resolution	format	0303	Gadion
UK-American mink presence all records (1952-2012)	15	Derived from records ≥ 100m	Dots	For: -providing overview of distribution across UK since records began -helping to plan further survey / research at national level.	Does not: -separate mink survey records from mink trapping records. Mink 'presence' may in some cases represent an animal that has been 'removed' from the population.
UK-American mink presence all records (1952-2012)	16	Derived from records ≥ 1km resolution	10km squares	For: -providing overview of distribution across UK since records began -helping to plan further survey / research at national level.	Does not: -separate mink survey records from mink trapping records. Mink 'presence' may in some cases represent an animal that has been 'removed' from the population.
UK-American mink presence (2008-2012)	17	Derived from records ≥ 100m	Dots	For: -providing overview of distribution across UK over the last five years -helping to plan further survey/ research at national level	Does not: -separate mink survey records from mink trapping records. Mink 'presence' may in some cases represent an animal that has been 'removed' from the population.
UK-American mink presence (2008-2012)	18	Derived from records ≥ 1km resolution	10km squares	For: -providing overview of distribution across UK -helping to plan further survey / research at national level	Does not: - separate mink survey records from mink trapping records. Mink 'presence' may in some cases represent an animal that has been 'removed' from the population.
UK-American mink absence (1952-2011)	19	Derived from records ≥ 100m	Dots	For: - indicating where absence recorded during survey.	Does not: - indicate areas where mink have been absent historically or are currently absent.
UK-American mink absence (2008-2012)	20	Derived from records ≥ 100m	Dots	For: - indicating where absence recorded during survey.	Does not: - indicate areas where mink have been absent historically or are currently absent

Table 3: Water vole alert maps: quick guide

Map title	Page	Data displayed	Uses	Caution
South West RBD Water Vole Alert Map	22	Derived from records ≥ 100m with buffers	For: -identifying at least some of the	These maps do not: -confer any statutory or non-statutory
South East RBD Water Vole Alert Map	25	added.	potentially suitable habitat within water vole dispersal distance of populations recorded over the last five years -alerting users to potential presence of water voles -assisting with the collation of data for agri-environment schemes -alerting organisations that undertake regular maintenance tasks to the potential presence of water voles -planning future water vole survey and monitoring.	designation -provide a precise boundary defining presence/absence of water voles and/or their
Wales Water Vole Alert Map	28			habitat e.g. the 0.5 wide buffer along occupied watercourses will not always capture the extent
Severn RBD Water Vole Alert Map	31			of adjacent suitable habitatidentify other potentially suitable habitat into which populations may move in the future
Thames RBD Water Vole Alert Map	34			-remove the need to consider other mapping/imagery to assess habitat suitability -remove the need to undertake new surveys prior
Anglian RBD Water Vole Alert Map	37			to determining development/engineering/habitat works. Sub populations can disappear from sites
Dee RBD Water Vole Alert Map	40			and/or re appear from one survey season to the next. Populations may also move in response to relatively small changes in habitat quality.
North West RBD Water Vole Alert Map	43			SCOTLAND:
Humber RBD Water Vole Alert Map	46			There has been a limited update to the alert maps for Scotland with new records arising from the PTES National Water Vole
Solway Tweed RBD Water Vole Alert Map	49	-		Monitoring Programme only.
Northumbria RBD Water Vole Alert Map	52	-		
Scotland Water Vole Alert Map	55	1		

Table 4: Water vole local key area maps: quick guide

Water Vole Local Key Area Maps				
Map title	Page	Data displayed	Uses	Caution
Water Vole Local Key Areas: South West RBD	23	Alert areas over 6km ² derived from	For: - indicating areas ≥ 6 km² that are	These maps do not: -confer any statutory or non statutory designation
Water Vole Local Key Areas: South East RBD	26	records ≥ 100m with buffers added	likely to support larger populations/clusters of populations that have a greater	-provide a precise boundary defining presence/absence of water voles and/or their habitat (as outlined in Table 5)
Water Vole Local Key Areas: Wales	29		chance of persisting long term -encouraging protection and/or	-identify other potentially suitable habitat into which populations may move in the future -remove the need to consider other
Water Vole Local Key Areas: Severn RBD	32	-	sensitive management of potentially suitable habitat within and adjacent to sites where water	-remove the need to consider other mapping/imagery to assess habitat suitability -remove the need to undertake new surveys prior
Water Vole Local Key Areas: Thames RBD	35	-	voles recorded in the last five years	to determining development/engineering/habitat works. Sub populations can disappear from sites and/or re appear from one survey season to the
Water Vole Local Key Areas: Anglian RBD	38	-	-assisting with designation of local wildlife sites-targeting survey and monitoring	next. Populations may move in response to small changes in habitat quality.
Water Vole Local Key Areas: Dee RBD	41	-	efforts -targeting habitat enhancement	-show smaller populations, which may decline due to stochastic eventshighlight small colonies or small clusters, which
Water Vole Local Key Areas: North West	44	-	and creation works -targeting mink control efforts -assisting with the development of	are highly unlikely to persist without positive intervention. <i>In some areas these small</i>
Water Vole Local Key Areas: Humber RBD	47	-	agri environment scheme applications	colonies may be essential in aiding recovery of populations and may also regarded as locally important.
Water Vole Local Key Areas: Solway Tweed RBD	50			SCOTLAND:
Water Vole Local Key Areas: Northumbria RBD	53			There has been a limited update to the alert maps for Scotland with new records arising
Water Vole Local Key Areas: Scotland	56			from the PTES National Water Vole Monitoring Programme only.

Table 5: Water vole regional key area maps: quick guide

Map title	Page	Data displayed	Uses	Caution
Water Vole Regional Key Areas: South West RBD	24	Alert areas over 35km² derived from	For: -indicating areas ≥ 35 km² where	These maps do not: -confer any statutory or non statutory designation
Water Vole Regional Key Areas: South East RBD	27	records ≥ 100m with buffers added	populations are more likely to survive the impacts of stochastic events and to persist > 40 years.	-provide a precise boundary defining the presence or absence of water voles and/or their habitat (as outlined in Table 5)
Water Vole Regional Key Areas: Wales	30		-prioritising long term strategic policy initiatives	-identify other potentially suitable habitat into which populations may move in the future
Water Vole Regional Key Areas: Severn RBD	33		-facilitating collaborative working -prioritising resource allocation -targeting mink control efforts at	-remove the need to consider other mapping/imagery to assess habitat suitability -remove the need to undertake new surveys prior
Water Vole Regional Key Areas: Thames RBD	36		regional level -assisting with designation of	to determining development/engineering/habitat works -show smaller populations, which may decline due
Water Vole Regional Key Areas: Anglian RBD	39		statutory and non-statutory sites -targeting survey and monitoring efforts at regional level	to stochastic events, -highlight small colonies or small clusters, which
Water Vole Regional Key Areas: Dee RBD	42		-targeting habitat works at regional level	are highly unlikely to persist without positive intervention. In some areas these small colonies may be essential in aiding recovery
Water Vole Regional Key Areas: North West	45		-encouraging protection and/or sensitive management of potentially suitable habitat within	of populations. They may represent all or most of the remaining populations in the area and
Water Vole Regional Key Areas: Humber RBD	48		and adjacent to occupied water vole sites	may also be regarded as regionally important.
Water Vole Regional Key Areas: Solway Tweed RBD	51		-assisting with the development of agri environment scheme applications	
Water Vole Regional Key Areas: Northumbria RBD	54			
Water Vole Regional Key Areas: Scotland	57			
United Kingdom Water Vole Regional Key Areas	58	Derived from records ≥ 100m with buffers added.	Strategic overview of water vole regional key areas.	Cautions as above.

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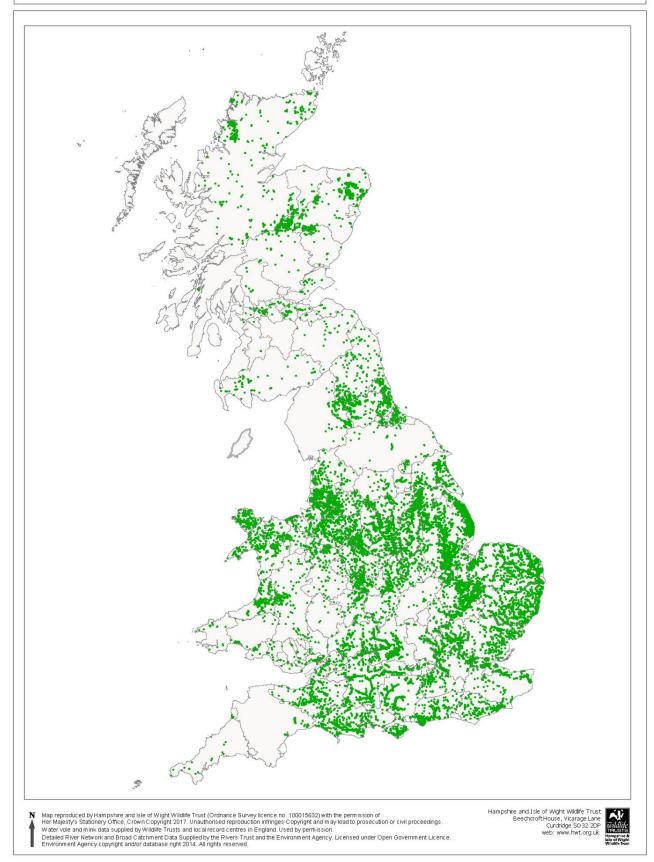
3. UK WATER VOLE DISTRIBUTION MAPS

All Records Jan 1861 - Dec 2015 75,063 Presence Records







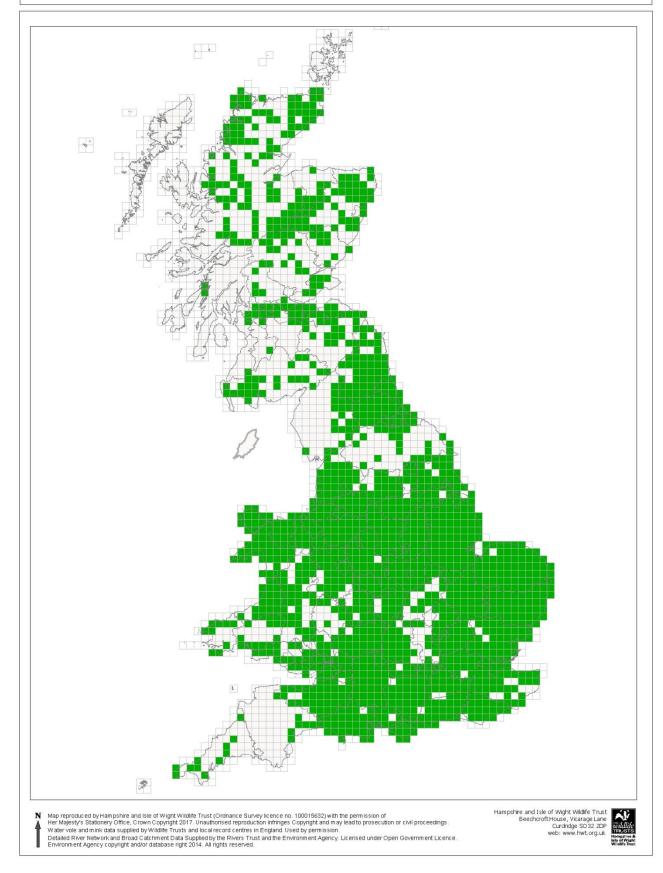


All Records Jan 1861 - Dec 2015 1,536 occupied 10 km grid squares







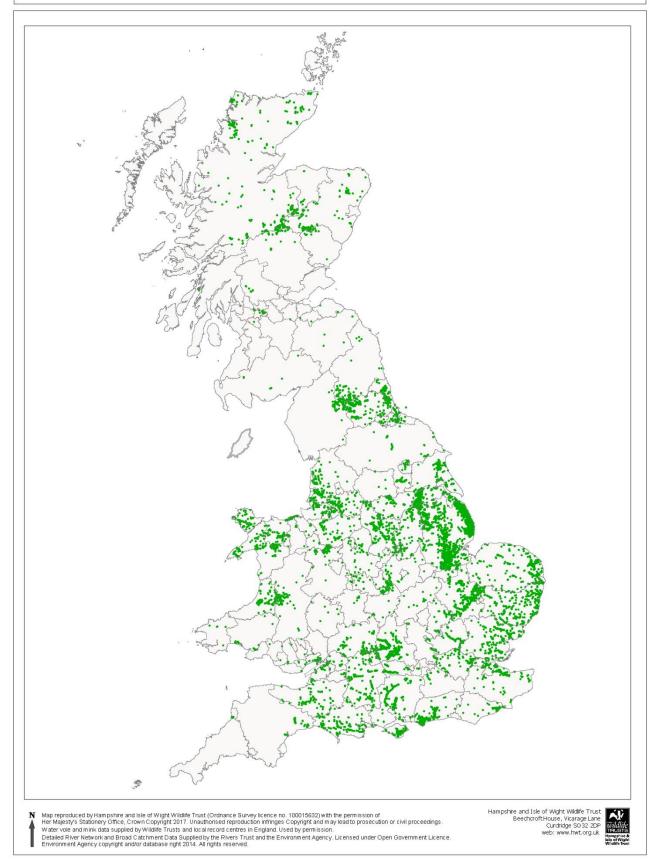


Jan 2006 - Dec 2015 42,684 Presence Records









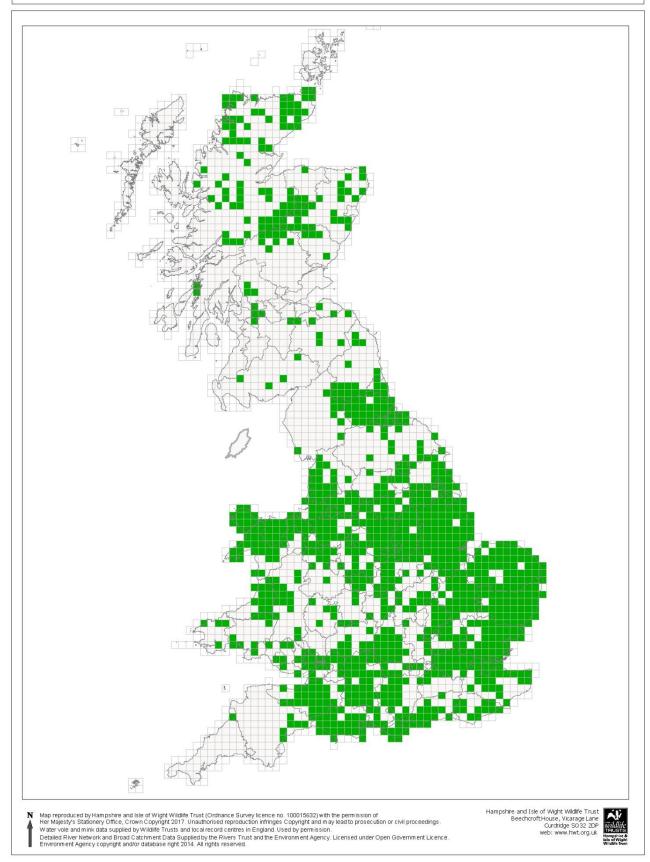
Jan 2006 - Dec 2015

1,033 occupied 10 km grid squares







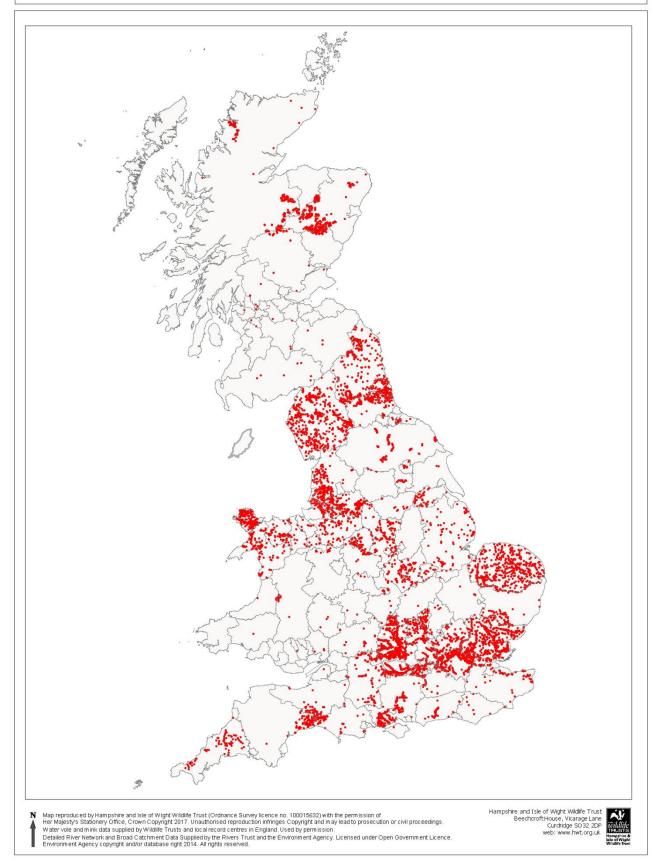


All Records Jan 1861 - Dec 2015 13,541 Absence Records







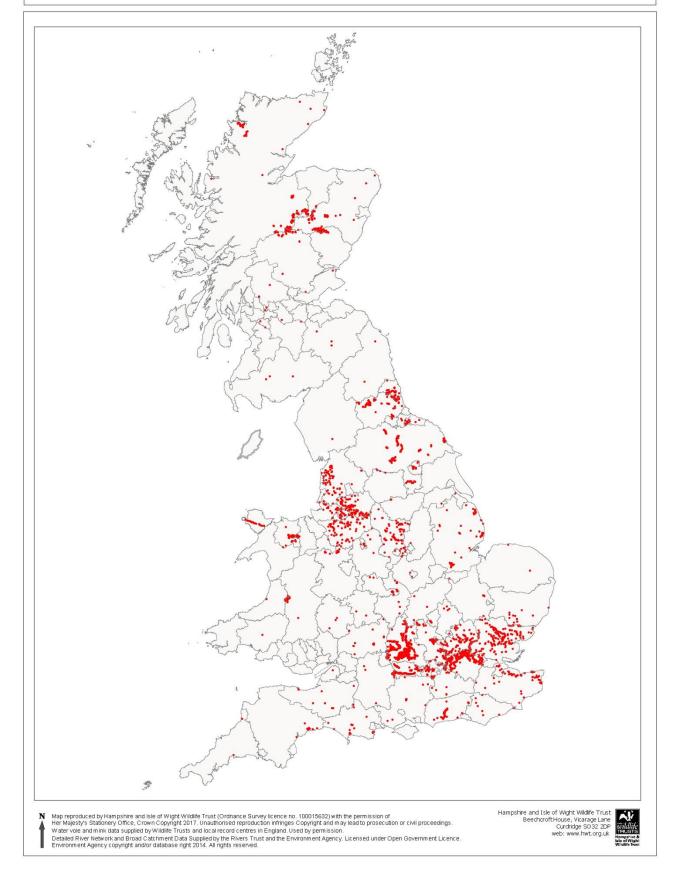


Jan 2006 - Dec 2015 5,642 Absence Records









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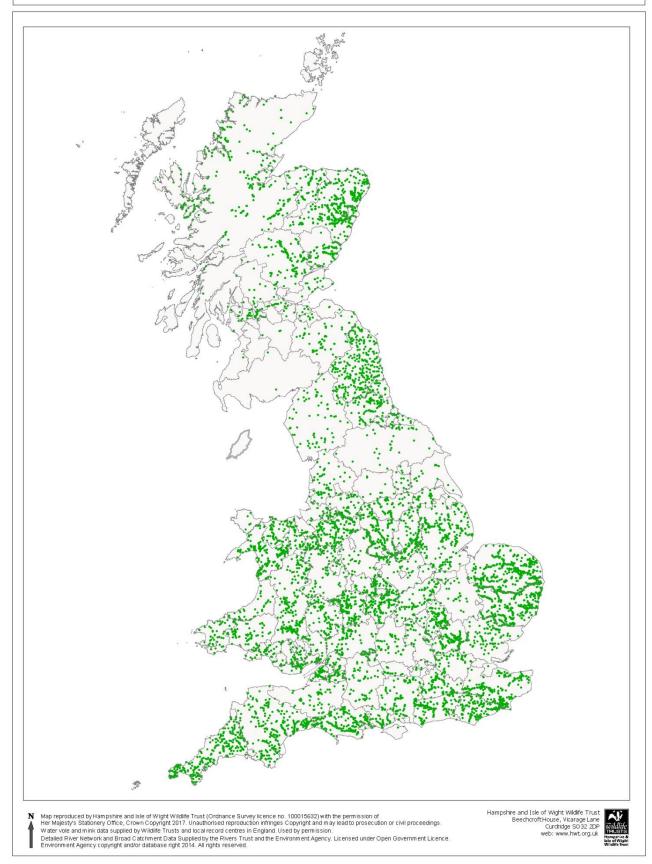
4. UK AMERICAN MINK DISTRIBUTION MAPS

All Records Jan 1905 - Dec 2015 16,377 Presence Records







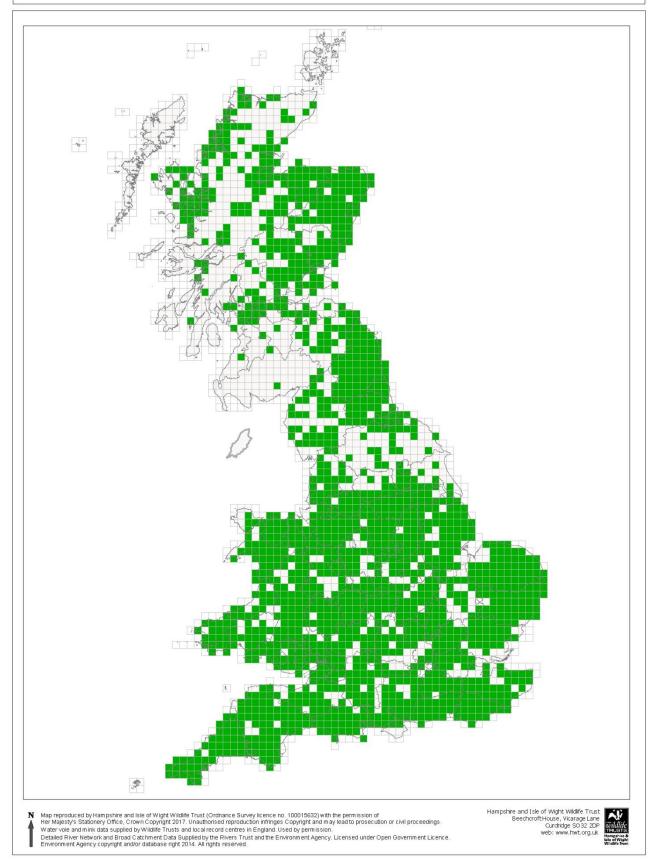


All Records Jan 1905 - Dec 2015 1,614 occupied 10 km grid squares







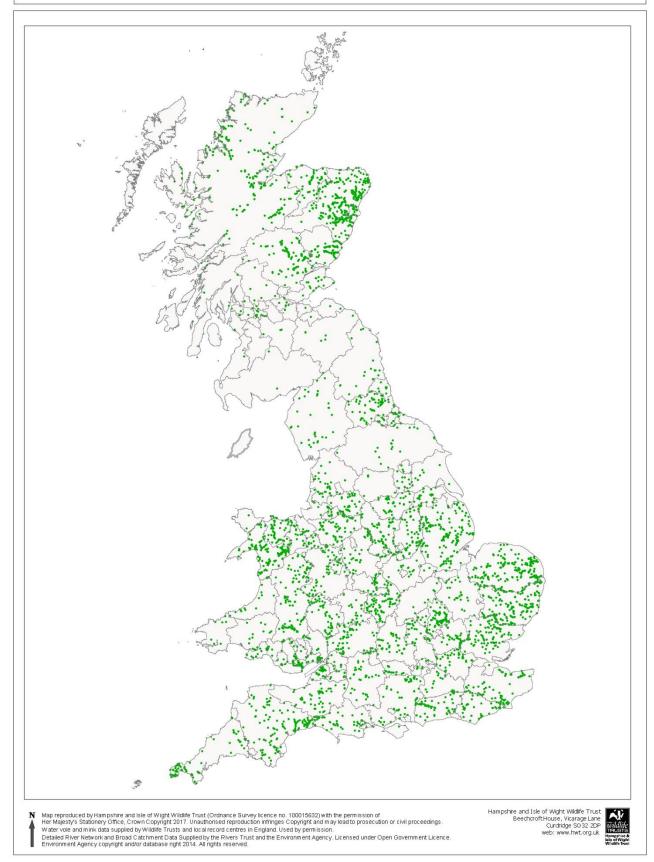


Jan 2006 - Dec 2015 6,659 Presence Records









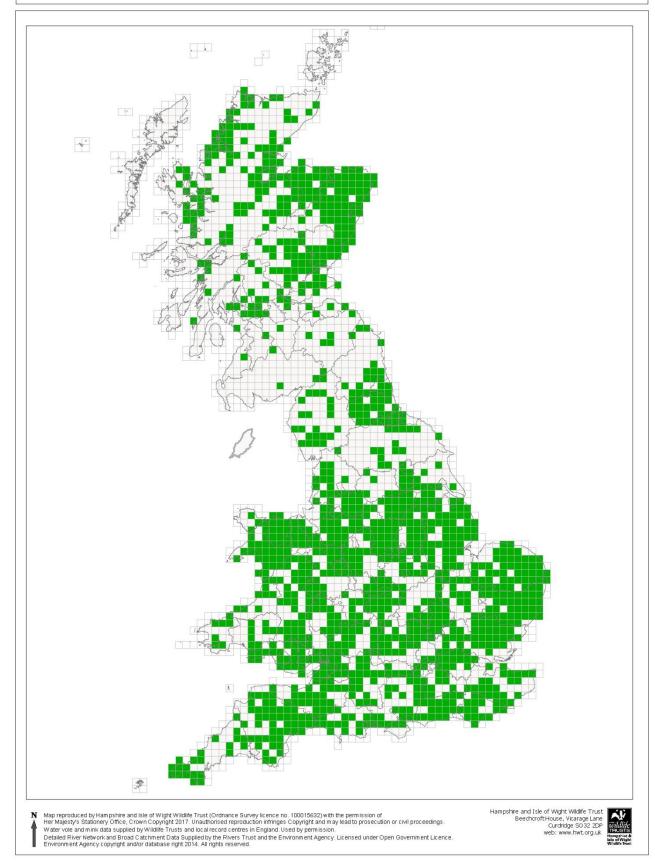
Jan 2006 - Dec 2015

1,234 occupied 10 km grid squares









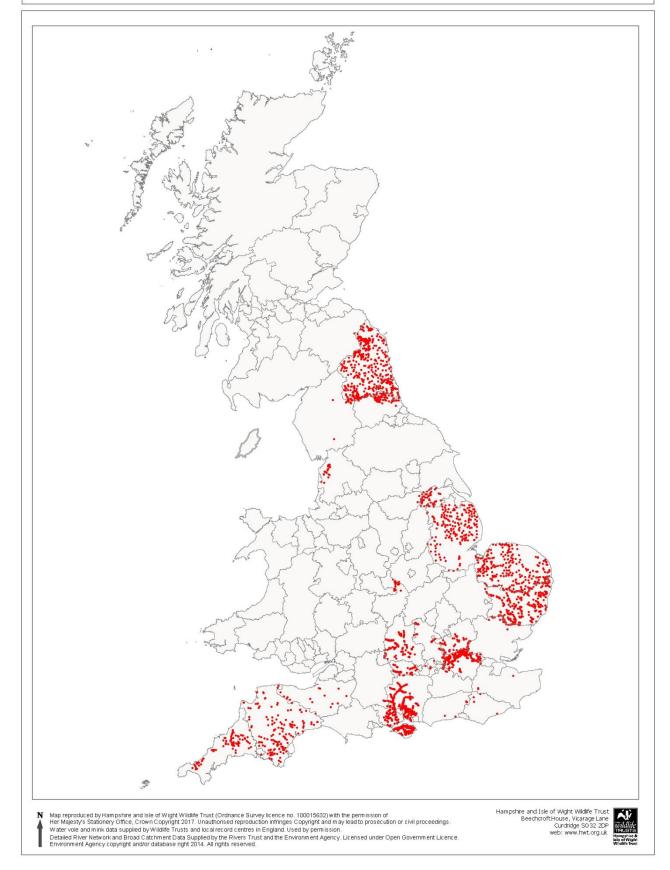
All Records Jan 1905 - Dec 2015

1,614 Absence Records







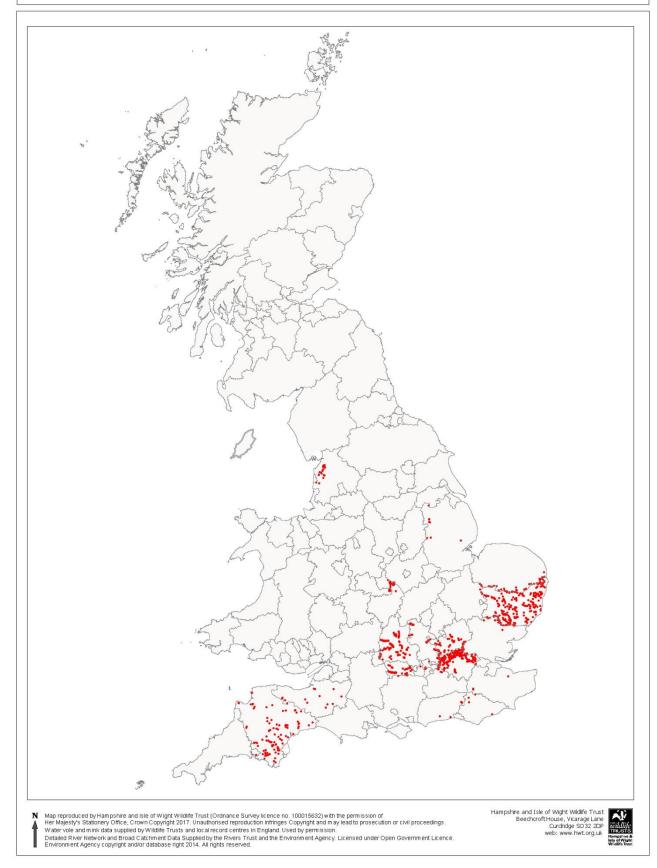


Jan 2006 - Dec 2015 2,290 Absence Records









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National Water V	oie Database.	ana wannina	Project Zuus-	ノロコカ

5. WATER VOLE ALERT & KEY AREA MAPS

5.1 SOUTH WEST RIVER BASIN DISTRICT

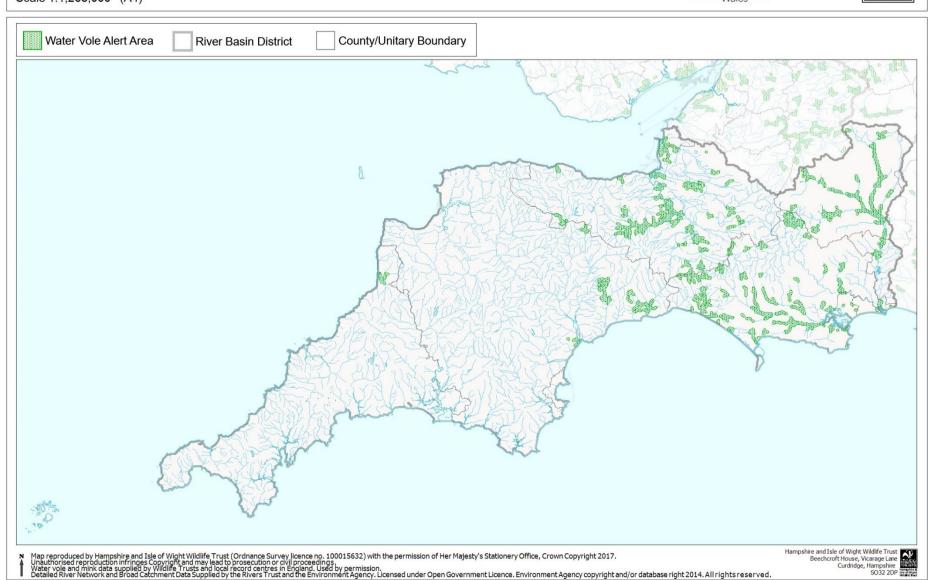
Water Vole Alert Map: South West RBD Water Vole Presence Jan 2006 - Dec 2015

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,268,000 (A4)









Water Vole Local Key Areas (>6 sq. km): South West RBD

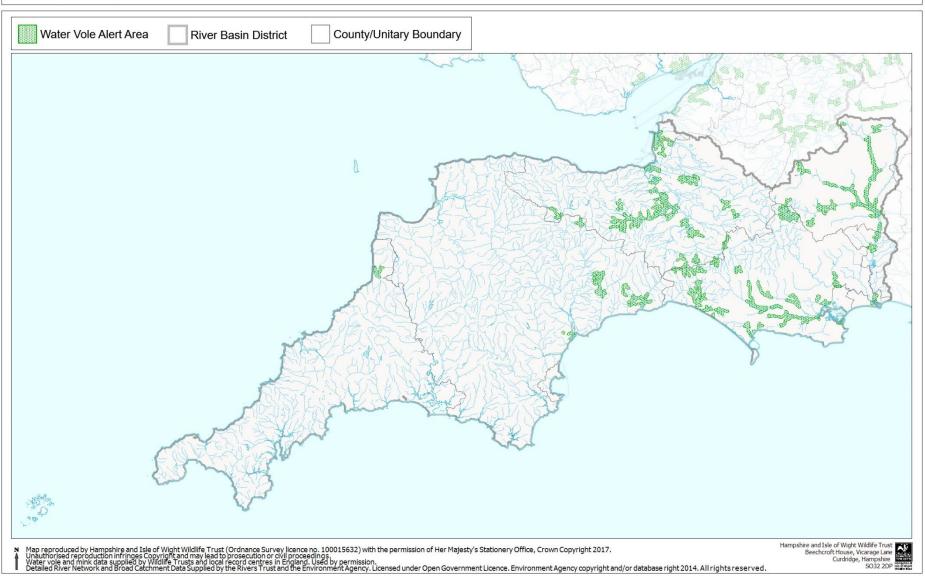
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:1,268,000 (A4)









Water Vole Regional Key Areas (>35 sq. km): South West RBD

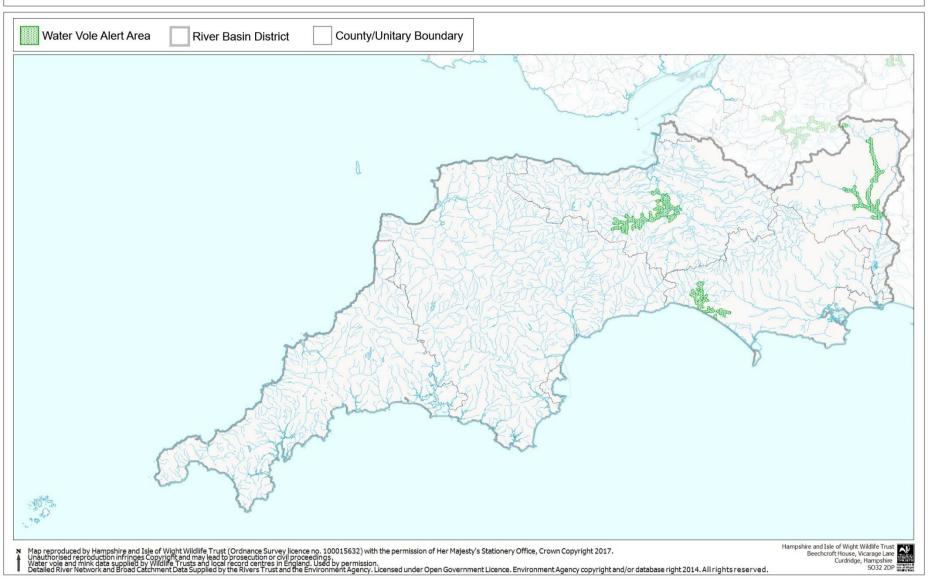
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:1,268,000 (A4)









5.2 SOUTH EAST RIVER BASIN DISTRICT

Water Vole Alert Map: South East RBD

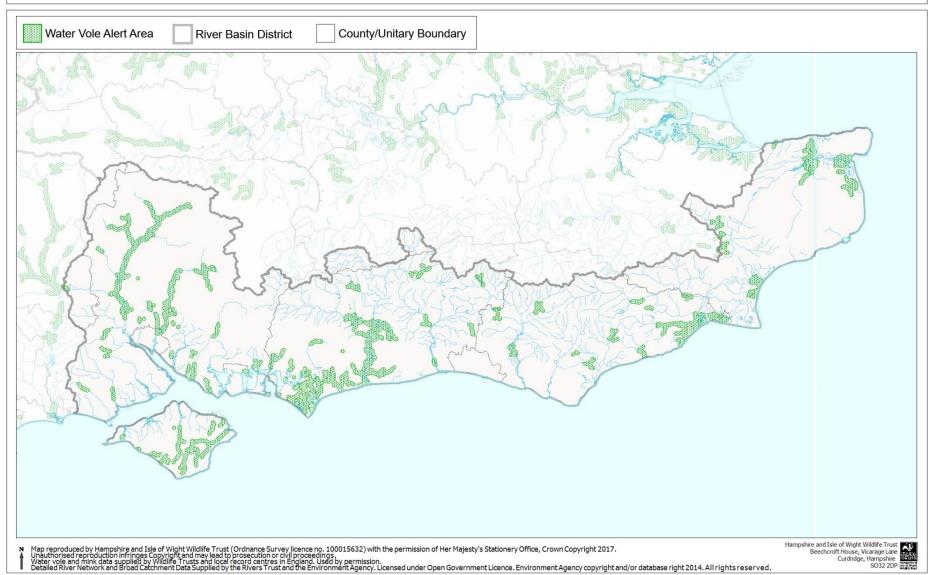
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:888,000 (A4)









Water Vole Local Key Areas (>6 sq. km): South East RBD

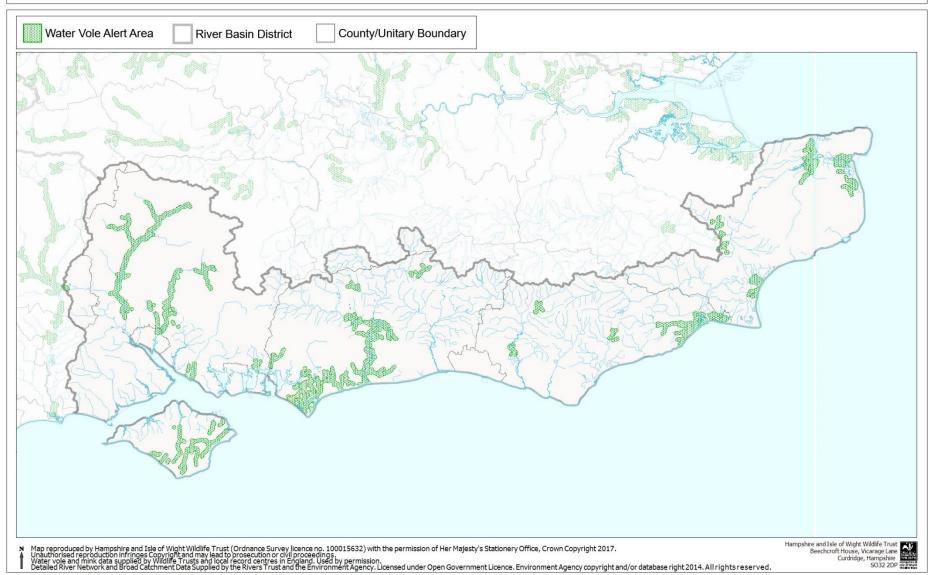
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:888,000 (A4)









Water Vole Regional Key Areas (>35 sq. km): South East RBD

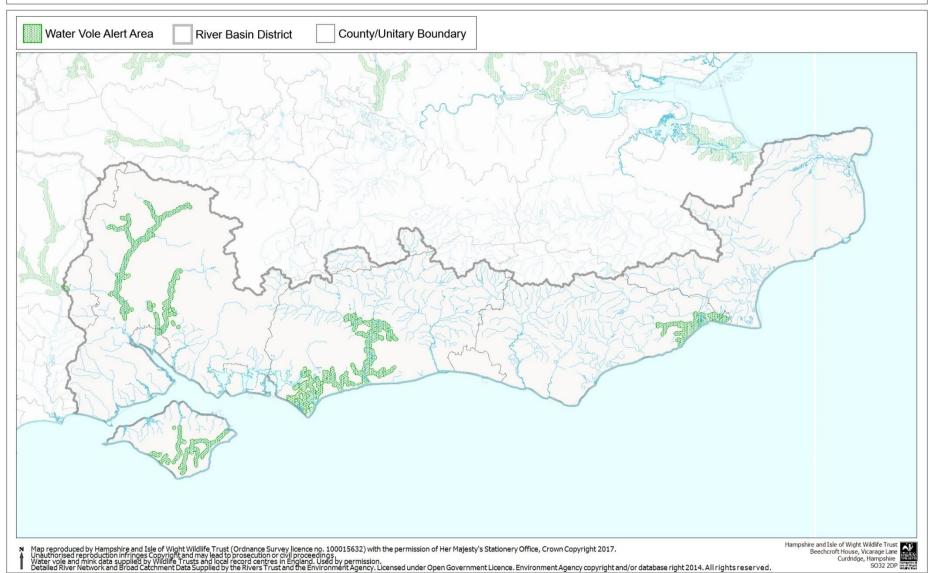
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:888,000 (A4)









Water Vole Alert Map: Wales

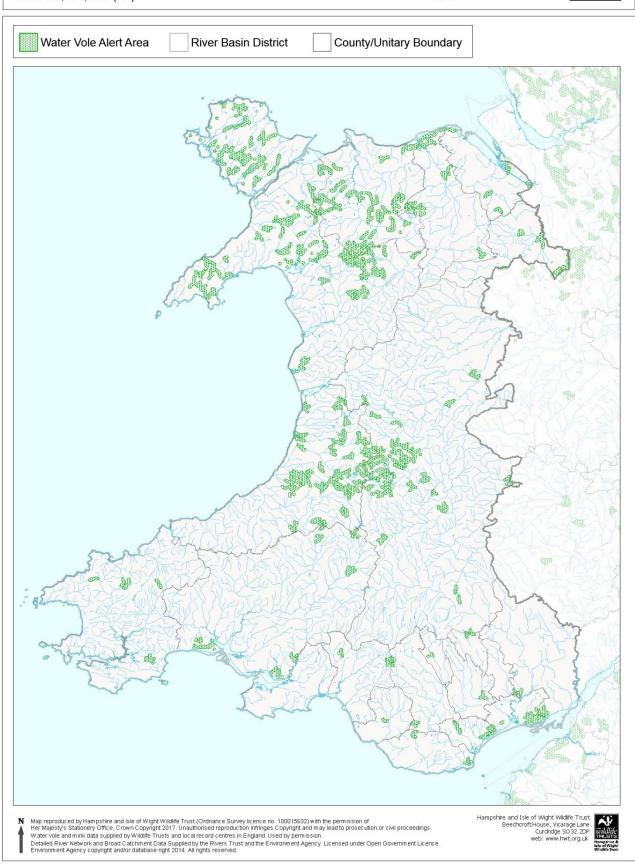
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:1,100,000 (A4)









Water Vole Local Key Areas (>6sq. km): Wales

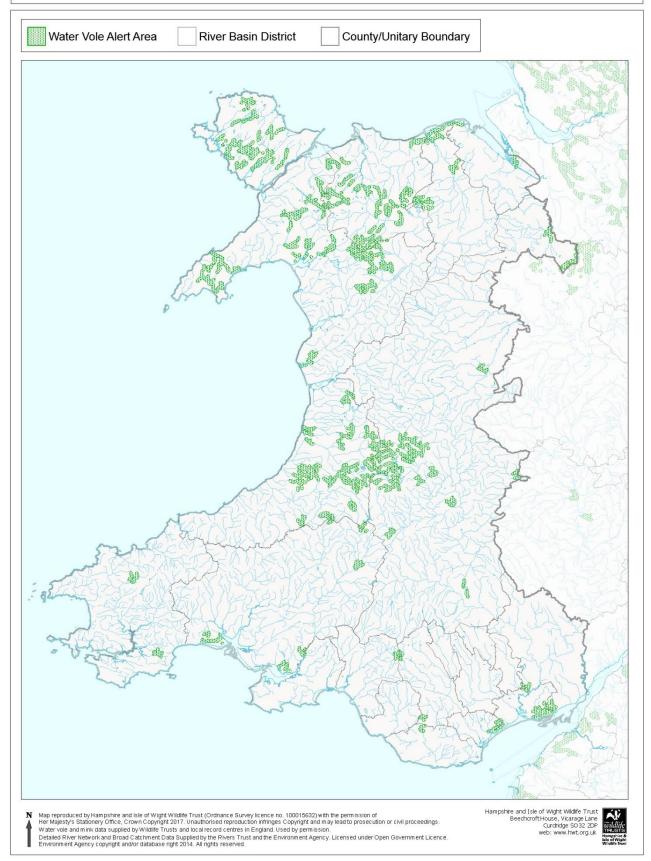
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:1,100,000 (A4)









Water Vole Regional Key Areas (>35sq. km): Wales

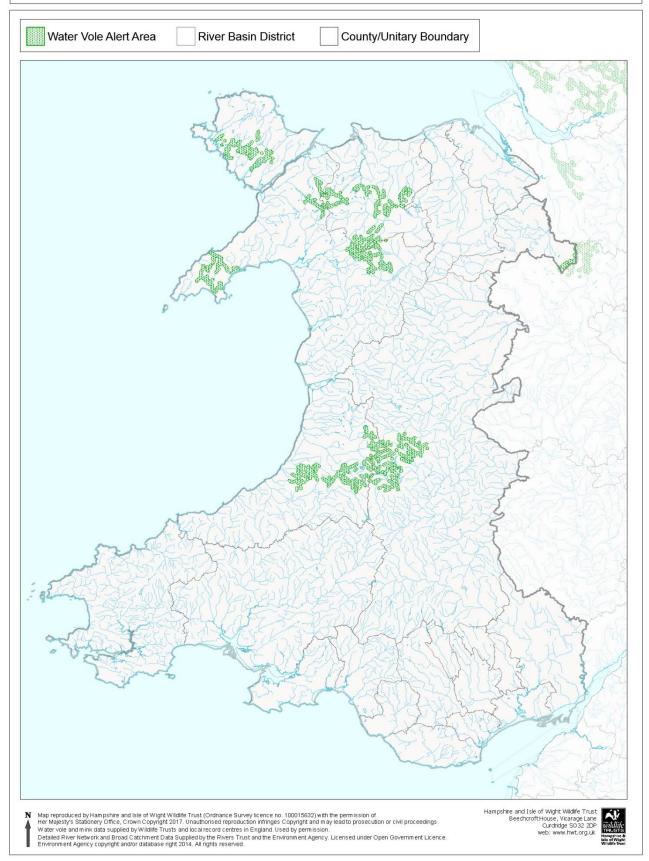
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:1,100,000 (A4)









5.4 SEVERN RIVER BASIN DISTRICT

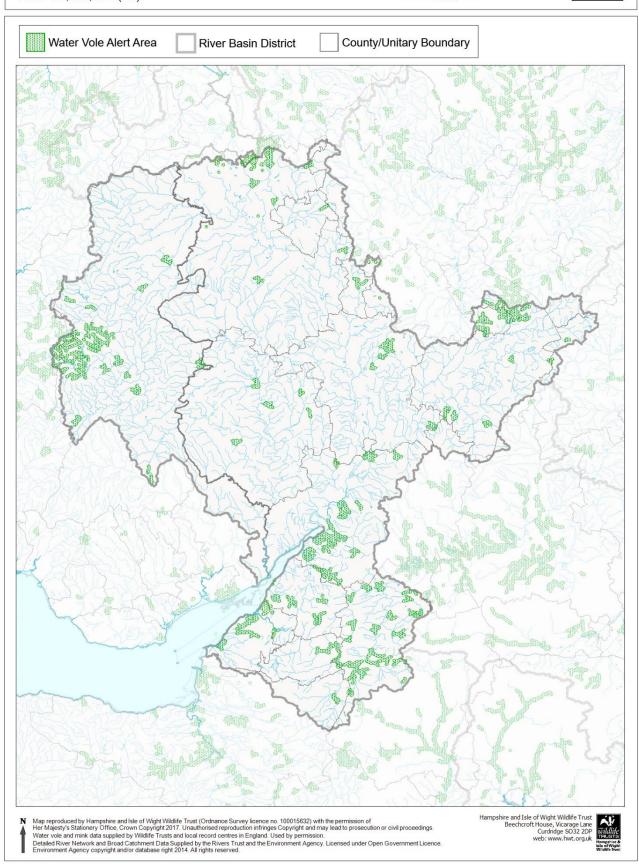
Water Vole Alert Map: Severn RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,130,000 (A4)









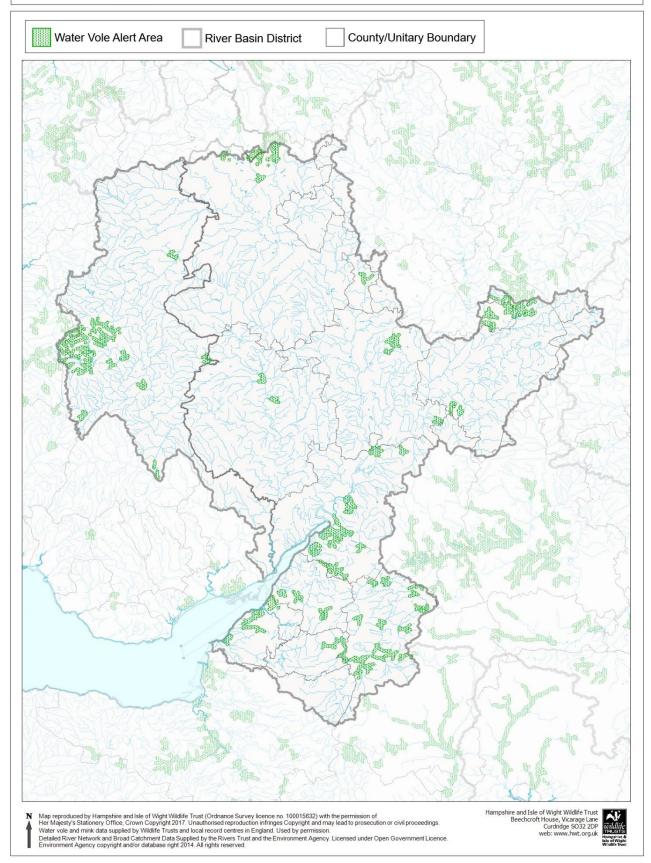
Water Vole Local Key Areas (>6sq. km): Severn RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,130,000 (A4)









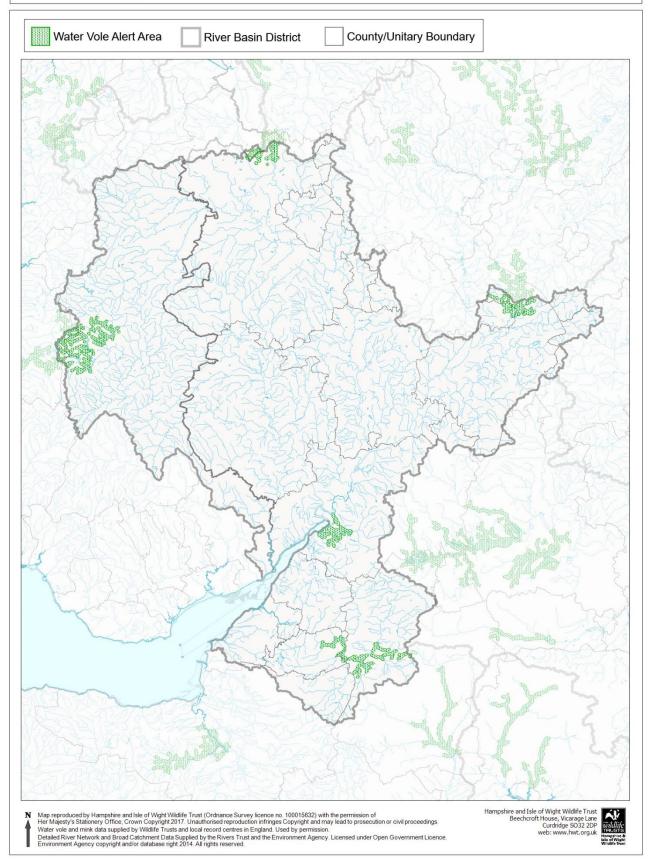
Water Vole Regional Key Areas (>35sq. km): Severn RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,130,000 (A4)









5.5 THAMES RIVER BASIN DISTRICT

Water Vole Alert Map: Thames RBD

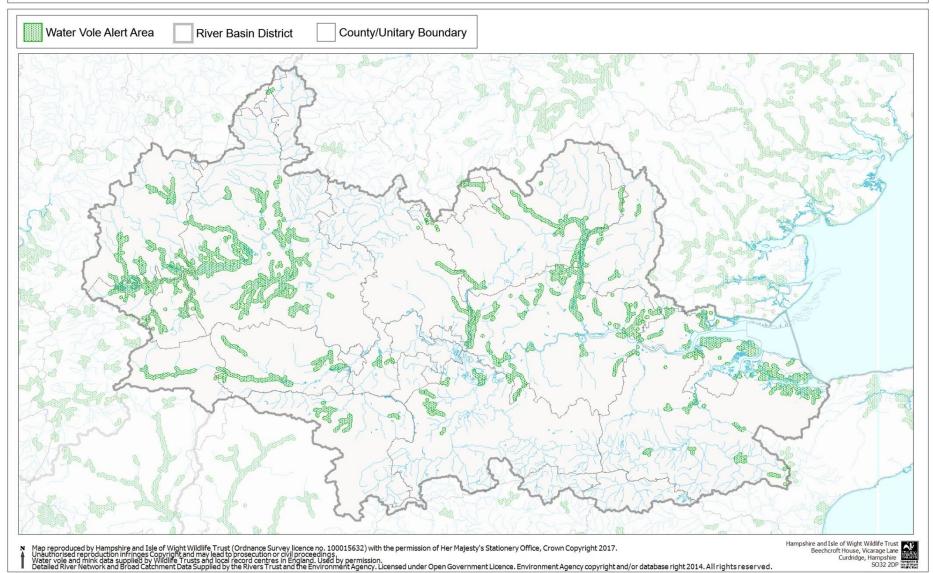
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:950,000 (A4)









Water Vole Local Key Areas (>6sq. km): Thames RBD

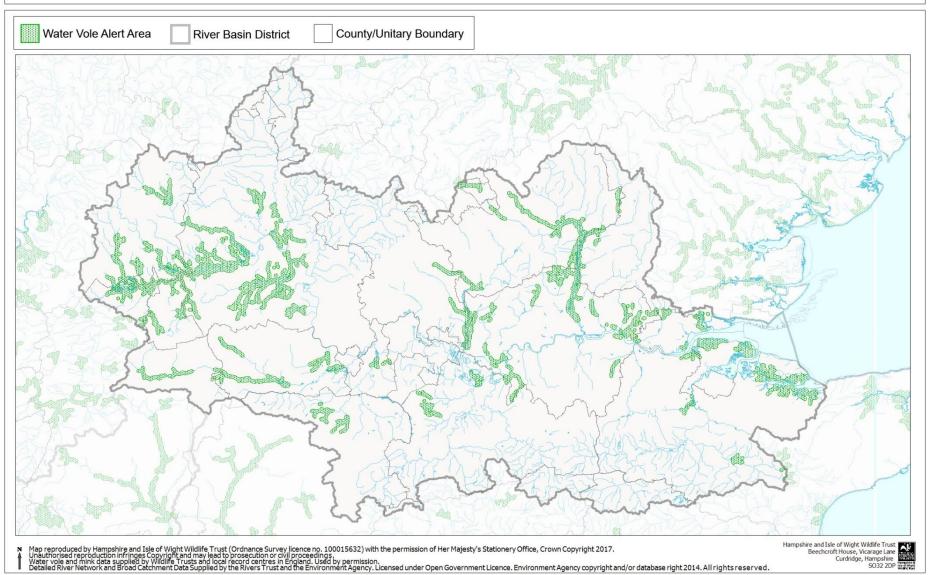
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:950,000 (A4)









Water Vole Regional Key Areas (>35sq. km): Thames RBD

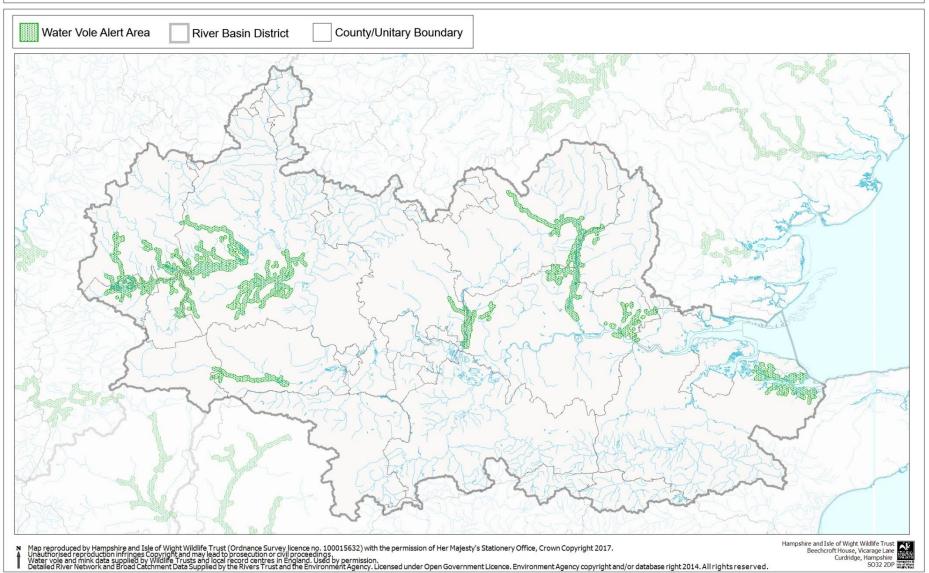
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:950,000 (A4)









5.6 ANGLIAN RIVER BASIN DISTRICT

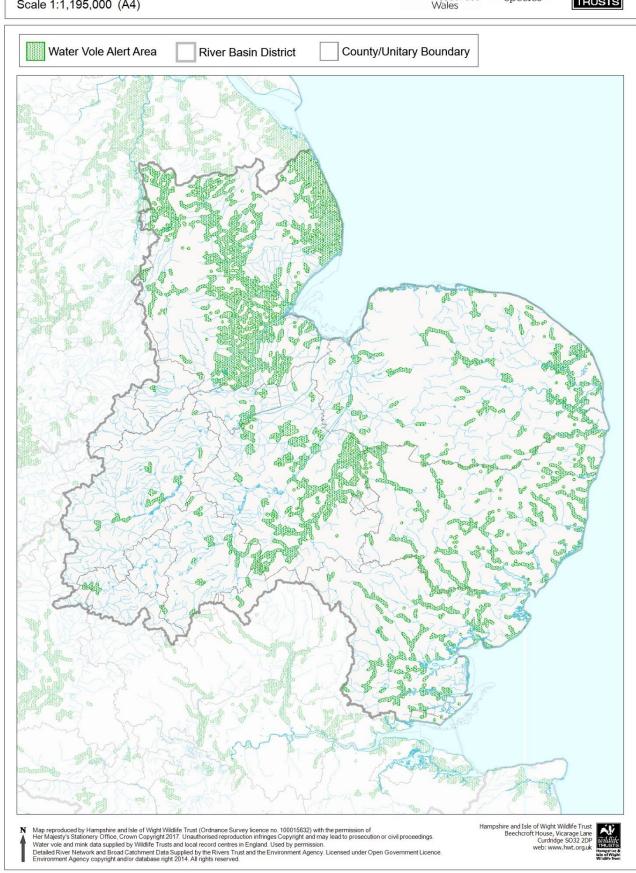
Water Vole Alert Map: Anglian RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,195,000 (A4)









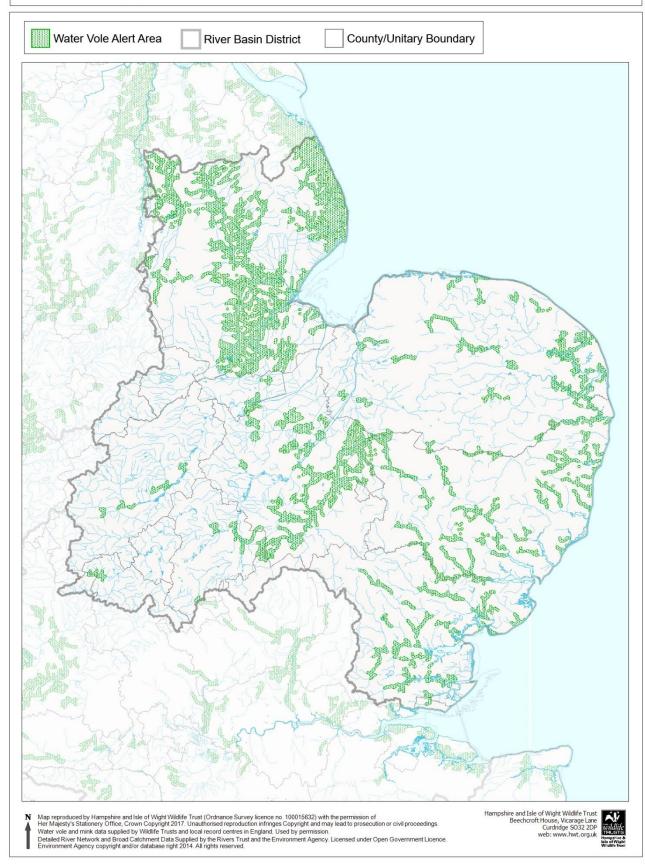
Water Vole Local Key Areas (>6sq. km): Anglian RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,195,000 (A4)









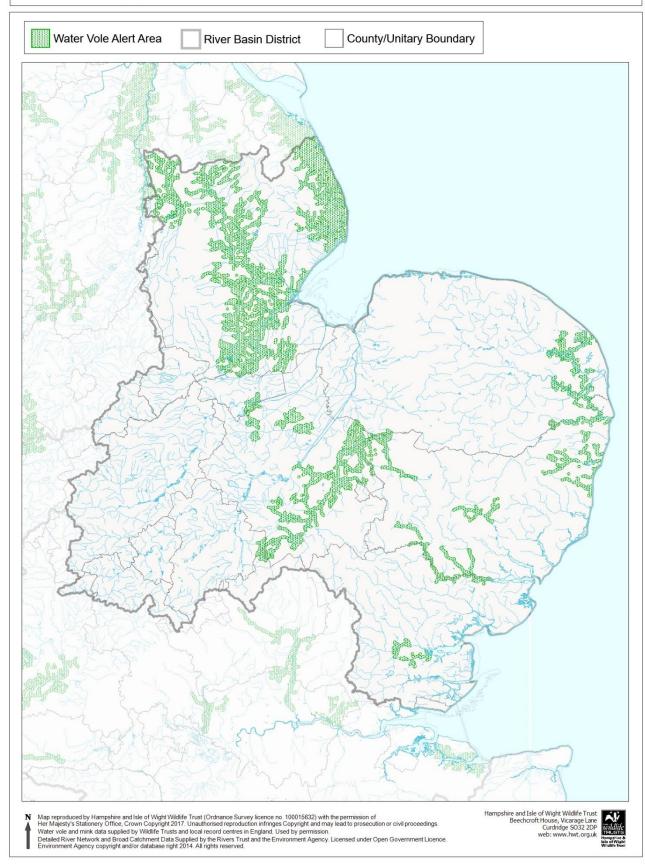
Water Vole Regional Key Areas (>35sq. km): Anglian RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,195,000 (A4)









5.7 DEE RIVER BASIN DISTRICT

Water Vole Alert Map: Dee RBD

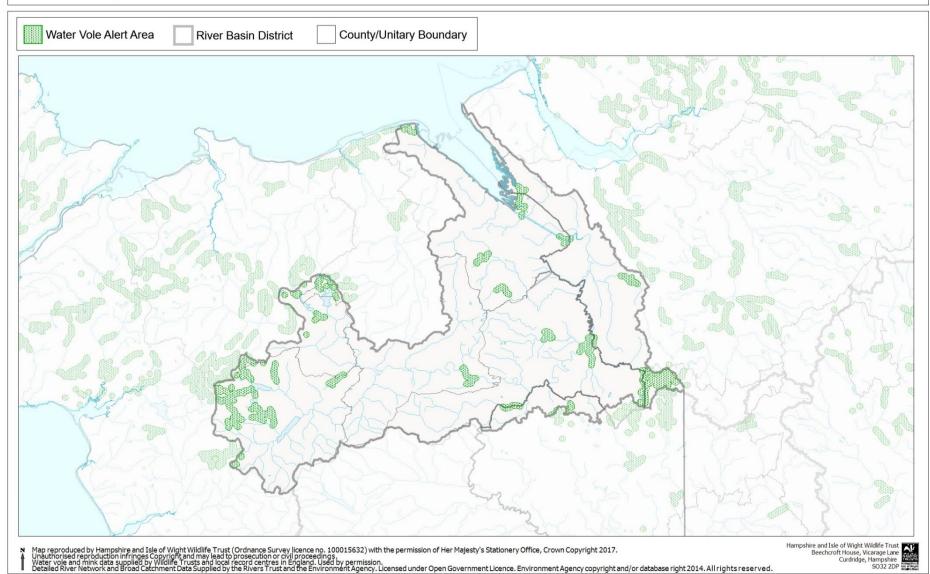
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:550,000 (A4)









Water Vole Local Key Areas (>6sq. km): Dee RBD

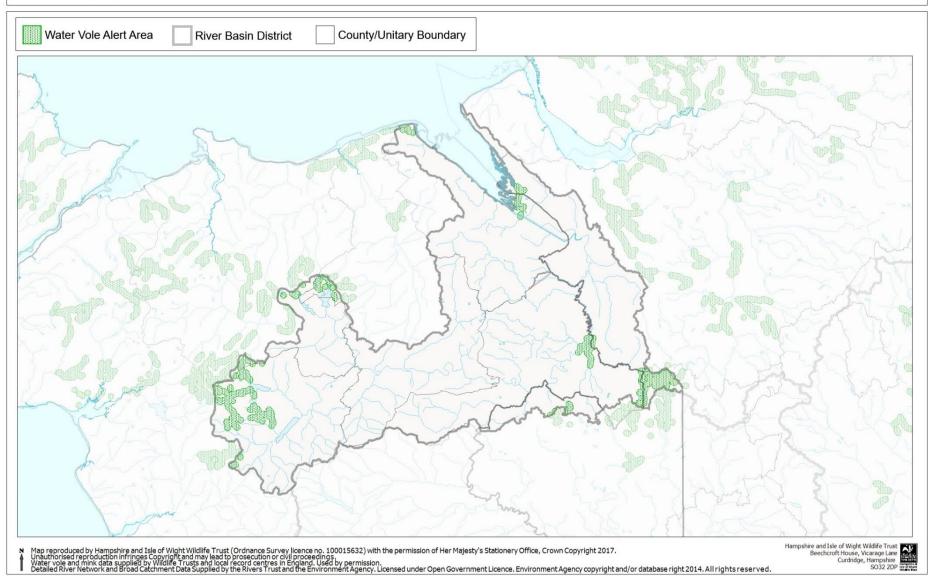
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:550,000 (A4)









Water Vole Regional Key Areas (>35sq. km): Dee RBD

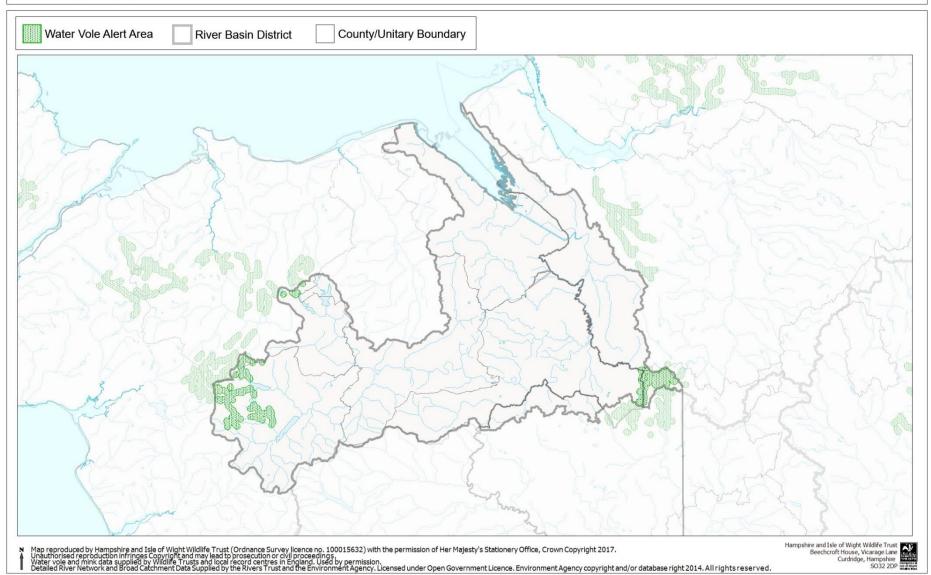
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:550,000 (A4)









5.8 NORTH WEST RIVER BASIN DISTRICT

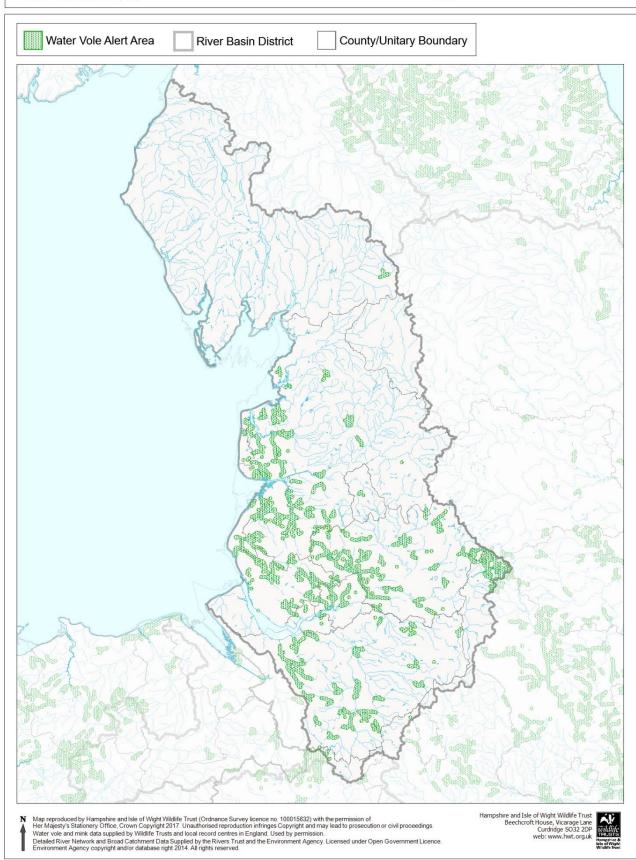
Water Vole Alert Map: North West RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,100,000 (A4)









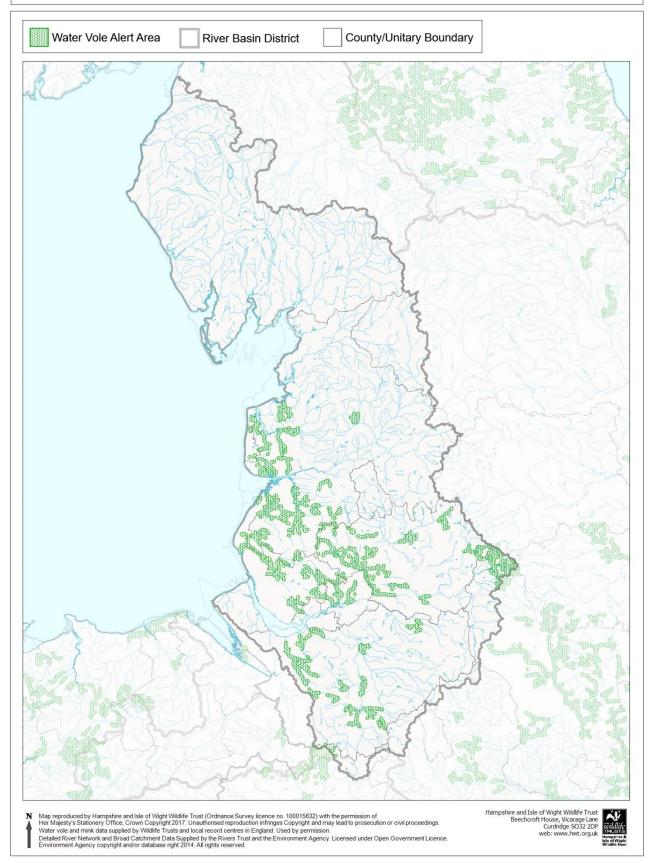
Water Vole Local Key Areas (>6sq. km): North West RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,100,000 (A4)









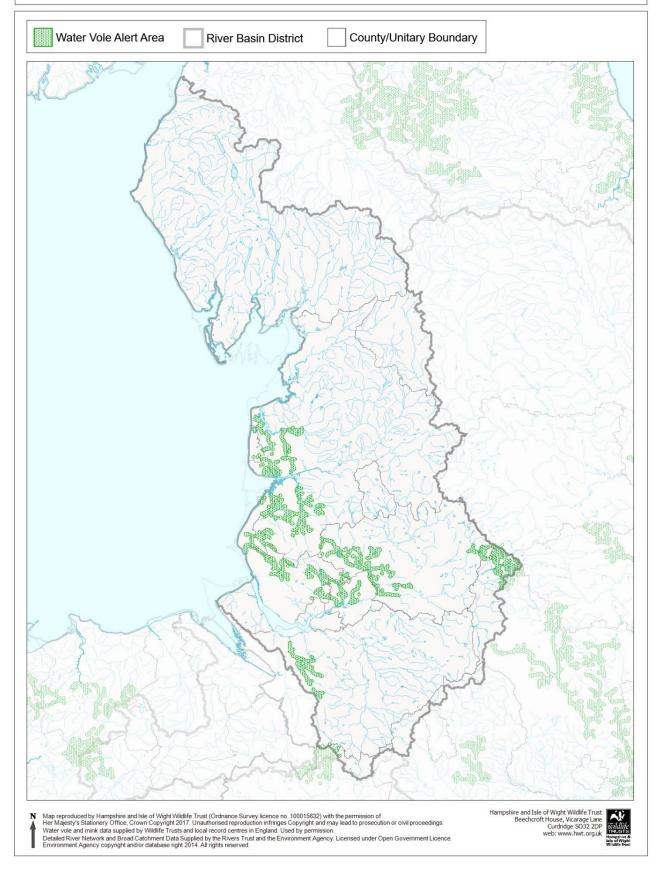
Water Vole Regional Key Areas (>35sq. km): North West RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,100,000 (A4)









5.9 HUMBER RIVER BASIN DISTRICT

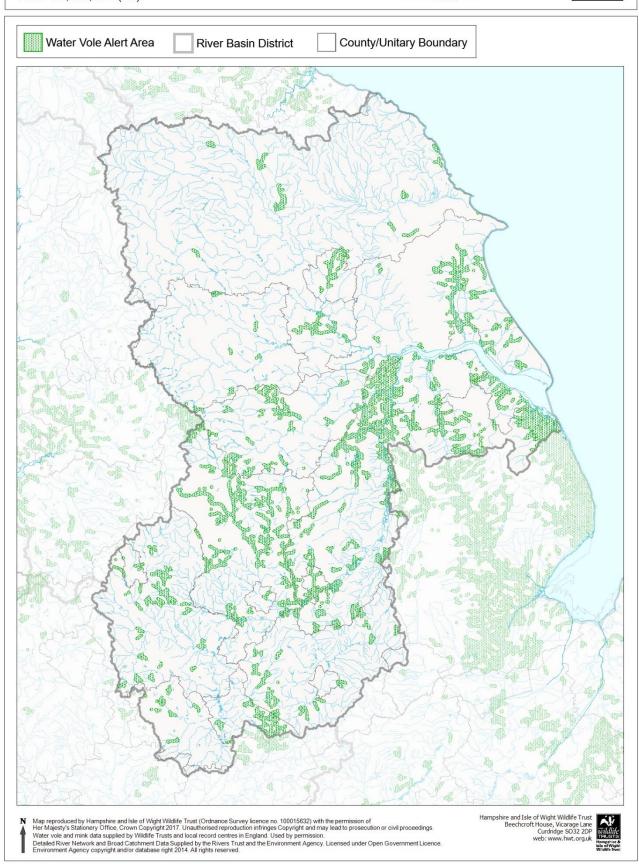
Water Vole Alert Map: Humber RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,180,000 (A4)









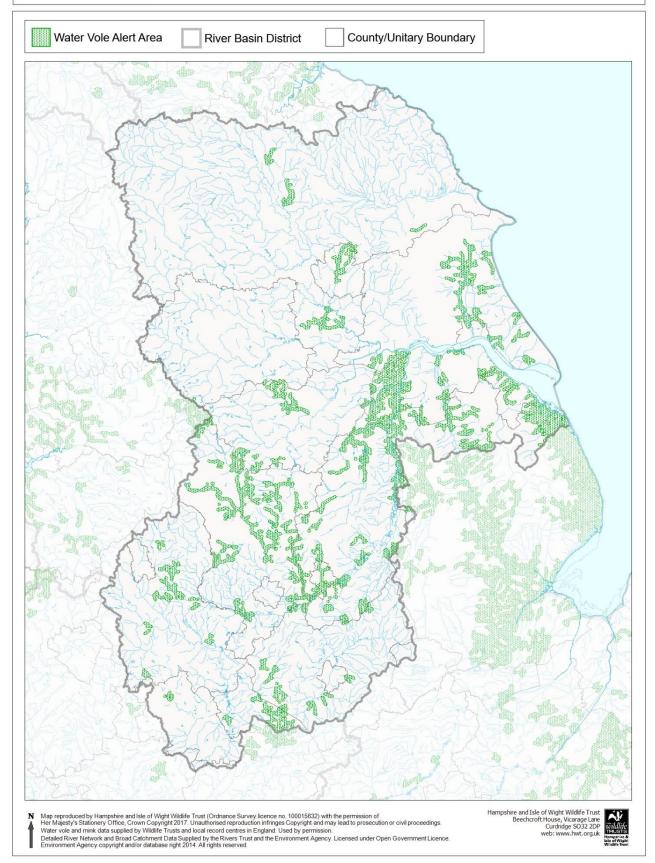
Water Vole Local Key Areas (>6sq. km): Humber RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,180,000 (A4)









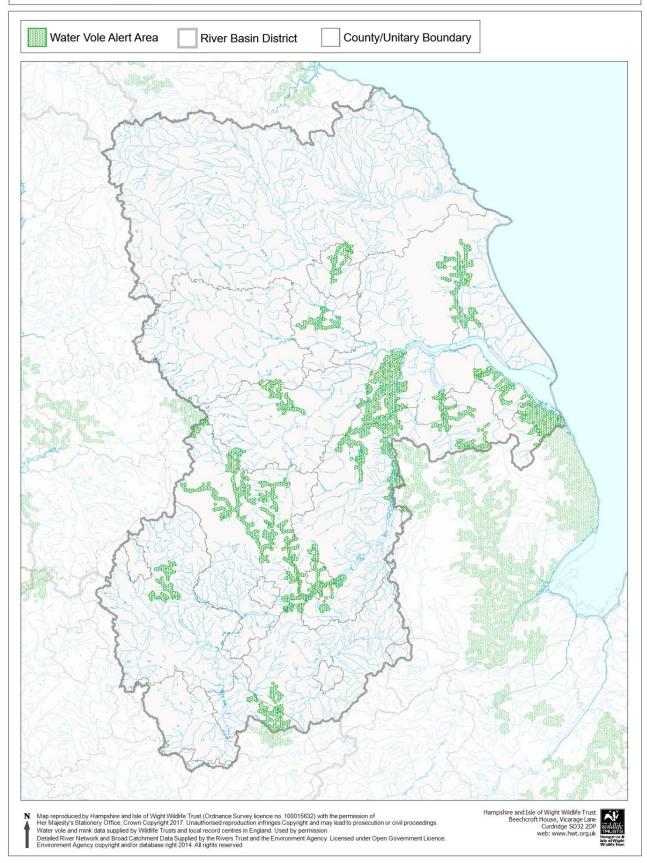
Water Vole Regional Key Areas (>35sq. km): Humber RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:1,180,000 (A4)









5.10 SOLWAY TWEED RIVER BASIN DISTRICT

Water Vole Alert Map: Solway Tweed RBD

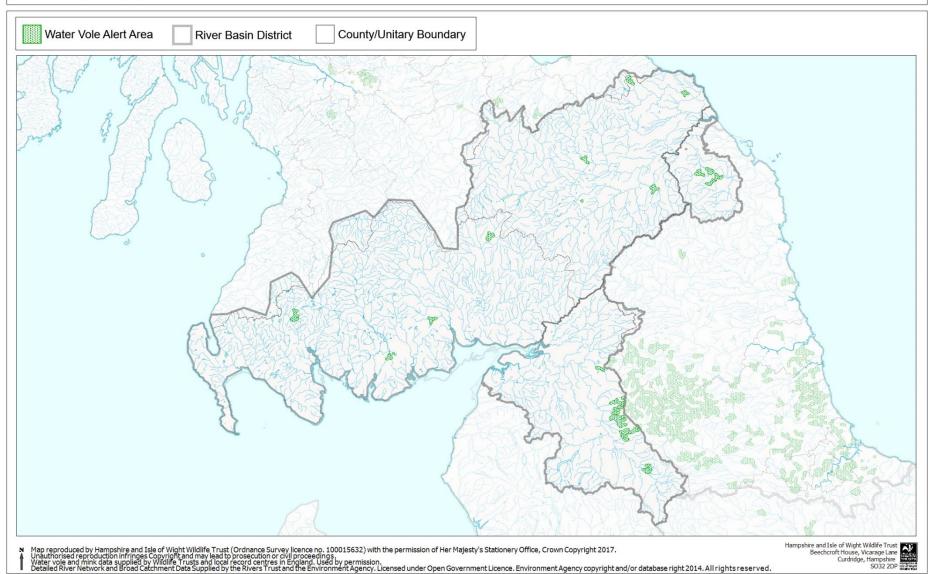
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:1,250,000 (A4)









Water Vole Local Key Areas (>6sq. km): Solway Tweed RBD

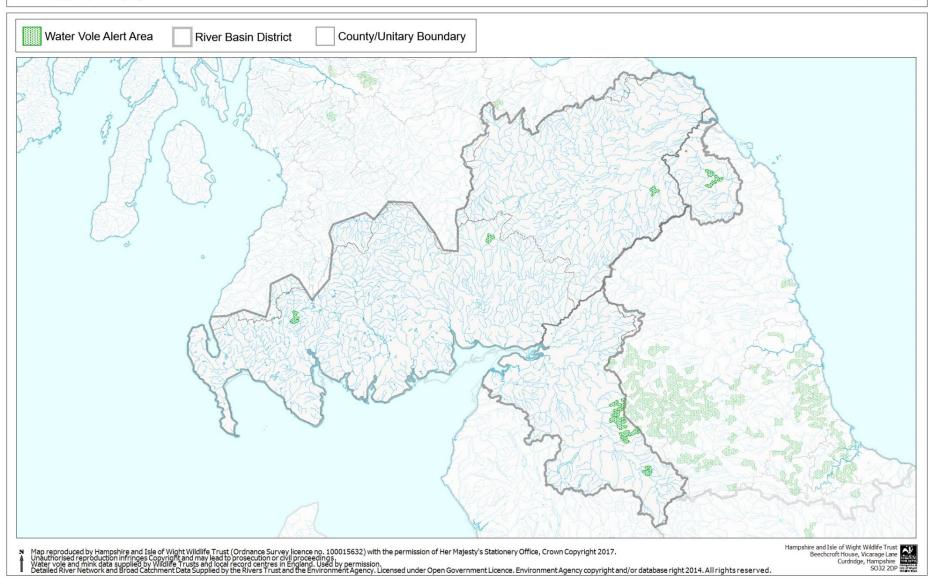
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:1,250,000 (A4)









Water Vole Regional Key Areas (>35sq. km): Solway Tweed RBD

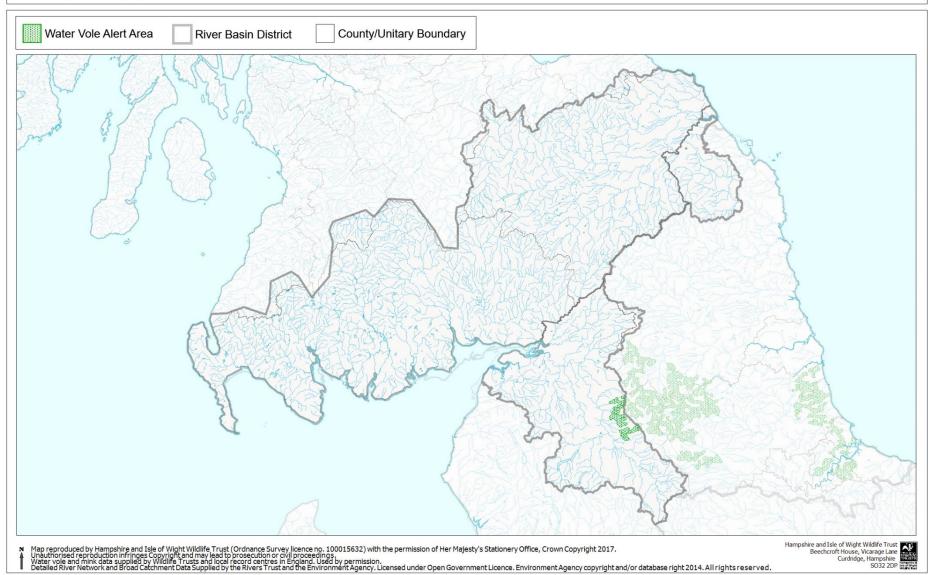
Water Vole Presence Jan 2006 - Dec 2015

Scale 1:1,250,000 (A4)









5.11 NORTHUMBRIA RIVER BASIN DISTRICT

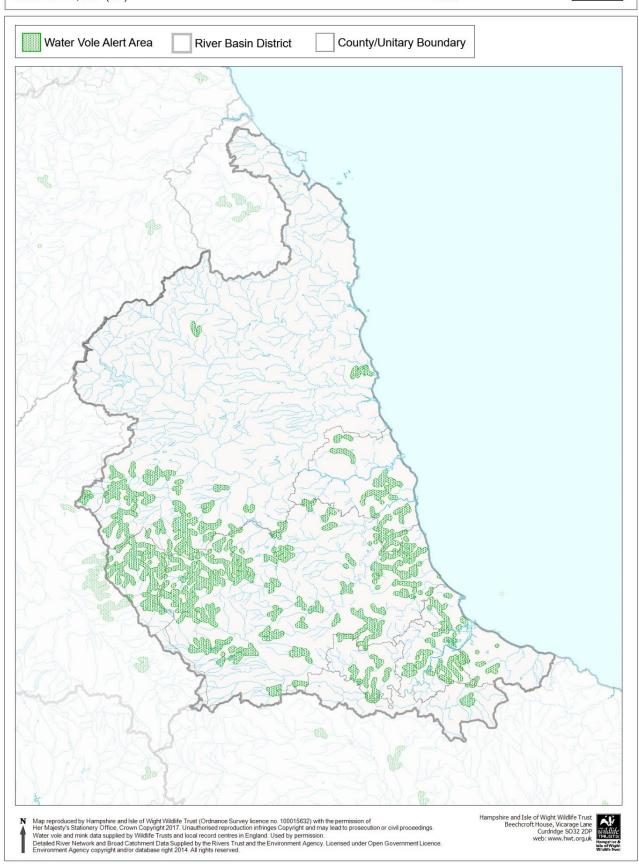
Water Vole Alert Map: Northumbria RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:800,000 (A4)









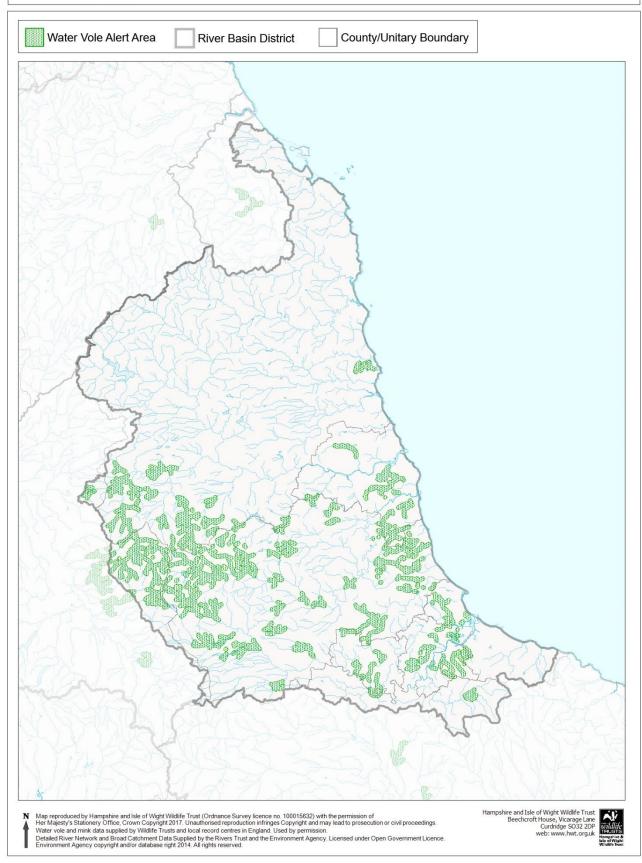
Water Vole Local Key Areas (>6sq. km): Northumbria RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:800,000 (A4)









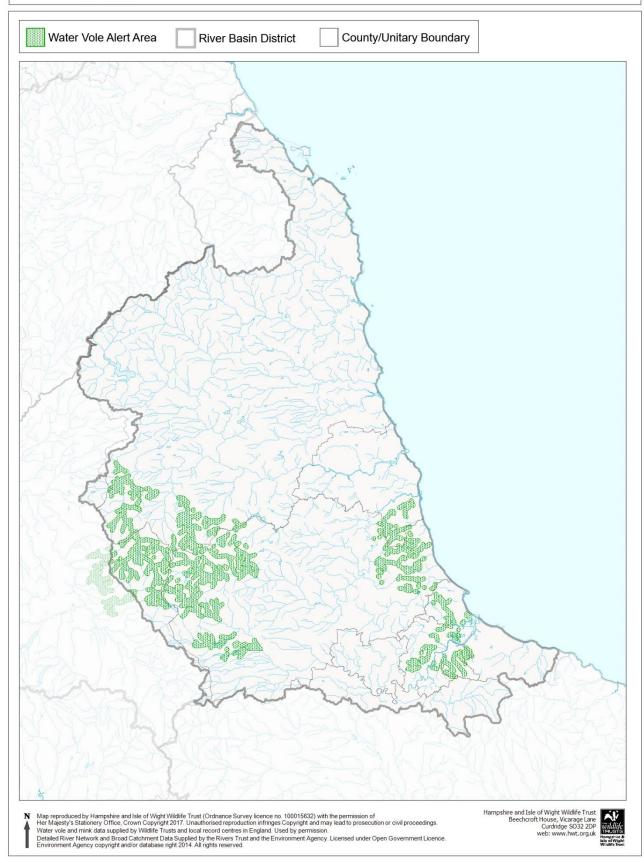
Water Vole Regional Key Areas (>35sq. km): Northumbria RBD

Water Vole Presence Jan 2006 - Dec 2015 Scale 1:800,000 (A4)









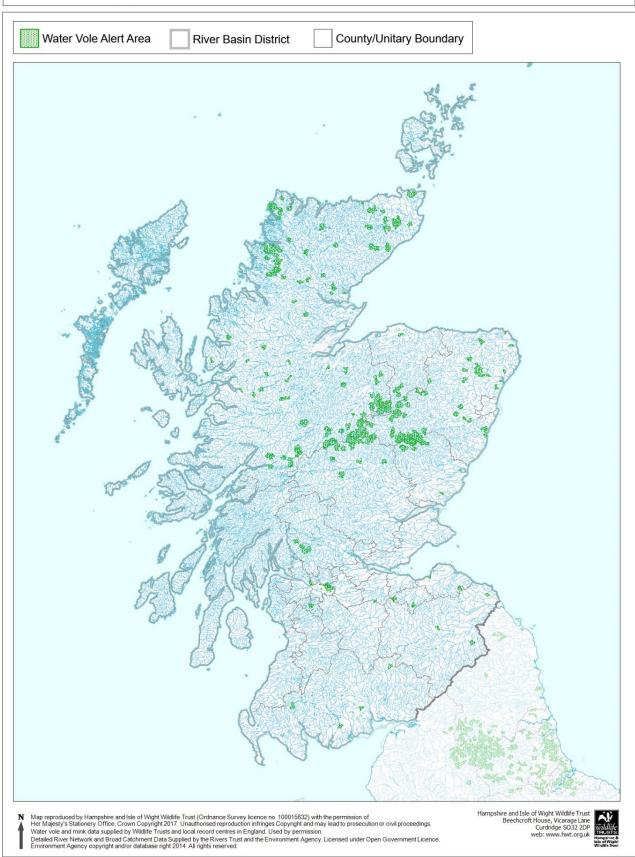
Water Vole Alert Map: Scotland

Water Vole Presence Jan 2006 - Dec 2015 (Note: Limited data availability 2011-2015) Scale 1:2,500,000 (A4)









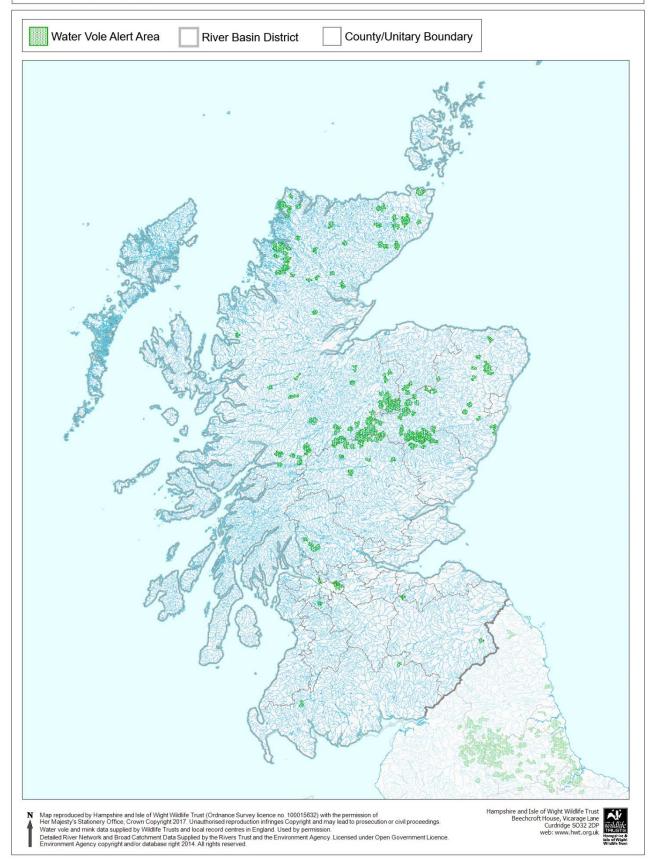
Water Vole Local Key Areas (>35sq. km): Scotland

Water Vole Presence Jan 2006 - Dec 2015 (Note: Limited data availability 2011-2015) Scale 1:2,500,000 (A4)





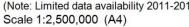




Water Vole Regional Key Areas (>35sq. km): Scotland

Water Vole Presence Jan 2006 - Dec 2015

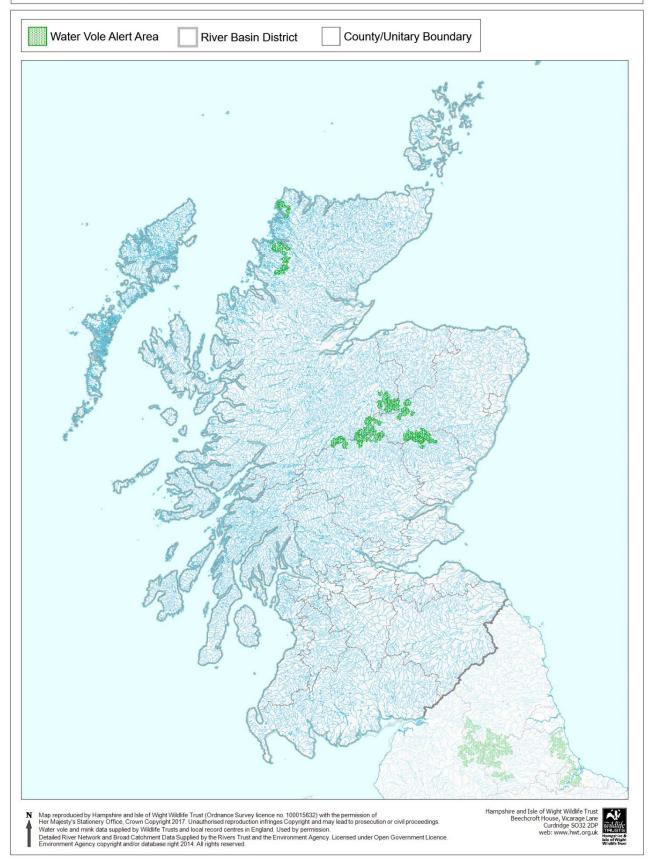
(Note: Limited data availability 2011-2015)











5.13 UNITED KINGDOM WATER VOLE REGIONAL KEY AREAS MAP

United Kingdom: Water Vole Regional Alert Map

with River Basin Districts







