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Manhood Wildlife and Heritage Group

Action Plan for Water Voles on the Manhood Peninsula, West Sussex, 2011-2020

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Action Plan for Water Voles Arvicola amphibius, on the Manhood Peninsula, West Sussex

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EXECUTIVE SUMMARY

The Manhood Wildlife and Heritage Group recognises the important role that the endangered water vole has, on the peninsula, and the potential it has as a flagship species, whose numbers are threatened by the loss of good and extensive riparian habitat. The Manhood Peninsula is able to provide a network of waterways that make up extensive habitat for water voles and this area is now a stronghold for this declining species in West Sussex. However, there is still pressure on these waterways through lack of sympathetic management, development and changes in land use.

A comprehensive water vole monitoring survey was carried out in 2011 and the results were used to map the sites where water voles are currently present. This, and other information gathered, was used to analyse how the Manhood Peninsula measures up to the 1997 Action Plan for Water Voles, put in place by the Water Vole Steering Group to help ensure the survival of this endangered small mammal.

The format of this Action Plan follows that adopted by the Biodiversity Action Plan Species Action Plan (SAP). For each target it contains:

- A review of what was done up to 2000 - 2010
- A note of what has been done during 2011
- A forward set of actions needed to implement the SAP, 2011-2020 to ensure a sustainable future for this endangered mammal.

There is a summary of the recommendations that have been put forward for action by the Manhood Wildlife and Heritage Group below:

- The employment of a Water Vole Project Officer.
- To ensure the continuation of the mink control programme.
- The formation of a water vole forum where all agencies meet regularly.
- To create a comprehensive plan of ditch assessments, water vole surveys and waterway enhancement.
- To carry out a baseline survey of the ditches and rifes across the peninsula to establish their condition and the full distribution of the water vole population.
- Encourage parishes to take a more active role in the monitoring and management of their waterways.
- To attract and train an independent group of volunteers that are self-motivated and confident to carry out a sustained programme of water vole surveys.
- To increase the profile of the water vole through education in schools, talks to parish councils and interested groups, and through the press.

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Illustrations provided by John Davis

Habitat photos by Jane Reeve

PREAMBLE

The Manhood Peninsula in West Sussex lies to the south of Chichester culminating in the well-known migration point at Selsey Bill. It comprises 11 Parishes and provides a flat undulating landscape with areas of international and nationally important wildlife sites round the coast, designated principally for their populations of wading birds, geese and wildfowl.

However, lurking in the network of ditches and channels of water (known as rifes) and a hangover from the time when the flat undulating land was composed of marshes, lives a national treasure. The Endangered Water Vole is the fastest declining mammal in Britain but, in West Sussex, the Manhood Peninsula provides a stronghold for this special mammal, hosting a regionally important population. The WildCRU and FWAG project of 2000 centred on Pagham Harbour Local Nature Reserve and the Bremere Rife, brought together landowners, reviewed farming practices and bolstered the native population of water voles. This nationally recognised initiative and research is included in the *Water Vole Conservation Handbook*, editions 2 and 3, and is seen as the successful template for future water vole projects. However, ten and twenty years on, ensuring that the momentum is kept up on water vole conservation is the real challenge.

The Manhood Wildlife and Heritage Group exists with the aim of:

> ***'To research, conserve and enhance the landscape, biodiversity and heritage of the Manhood Peninsula[1] through community involvement and to foster its care, enjoyment and understanding'.***

The vision is:

> ***'The development of an ecological network on the Manhood Peninsula which respects local heritage, the aspirations of its residents, safeguards its wildlife and encourages biodiversity'.***

It is 20 years since the Convention on Biological Diversity was agreed as the first global agreement on biodiversity (1992) and 14 years since the UK Government published its Biodiversity Action Plan (BAP) programme supported by Species Action Plans etc. The list of BAP species was reviewed in 2007 and the aim now is to look after rare habitats while not neglecting the species which make use of them. What implications does this have for the Water Vole?

Initially a flurry of activity was spurred on by these publications. The MWHG obtained financial support to undertake some survey work. However, the work has been sporadic and not yet reached a sustainable level. This Action Plan has enabled the MWHG to draw together what has been done, review progress and propose actions to ensure a future for this rare animal on the Manhood Peninsula.

[1] The Manhood Peninsula is all that area of Chichester District in West Sussex which lies South of the city of Chichester and which comprises the civil parishes of Apuldram, Birdham, Earnley, East Wittering and Bracklesham, Donnington, Hunston, North Mundham, Selsey, Sidlesham, West Itchenor and West Wittering, based on the recognised local government boundaries effective at 1st January 2009.

1. AIMS

In July 1997, the UK Species Action Plan (SAP) for water voles was produced by the UK Water Vole Steering Group in recognition of the status of the water vole as one of the UK priority species as described by the UKBAP (DoE, 1995). The key aims of the plan were to ensure the continued survival of a viable population of water voles. These aims have been reviewed in the context of the Manhood Peninsula to see where progress has been made and where more effort needs to be focused in the future. This then informs the Action Plan detailed in section 2.



2. ACTION PLAN OBJECTIVES AND TARGETS (1997)

- **Maintain the current distribution in order to arrest the decline of the species in Britain.**
- **Maintain the current abundance in order to arrest the decline of the species in Britain.**
- **Restore water voles to their former widespread distribution, using the Vincent Wildlife Trust survey of 1989/90 as a baseline, by the year 2010.**

The most recent 2011 survey supports the conclusion that there is still a viable wild water vole population on the Manhood Peninsula, although data from 2008/2009 and 2010 implies that it is quite mobile and fluctuating. There are some sites which, when surveyed one year, will have evidence of water vole occupancy and the following year there won't be any. The reverse is also true and so the exact and permanent location of water voles can be difficult to ascertain. Water voles do move in and around ditches establishing territories and in the absence of water may well travel a few hundred metres to find more suitable habitat.

Sir John Lawton was asked to conduct a review of wildlife sites and to assess whether or not the UK has a comprehensive system. His verdict:

"We are far from where we need to be, but it is not too late. With appropriate action, these short-comings can be addressed.

His recommendations included that we need to:

1. Increase the size and condition of existing wildlife sites.

2. Create new wildlife areas, either as many small sites or a single large site of equivalent area.

3. Increase connectivity by physical corridors, or stepping stone sites, and,

4. Reduce the pressures on wildlife by improving the wider environment, including through buffering wildlife sites.

Make what exists larger and improve them, increase the number of sites, connect them up and reduce the pressures on wildlife".

While the Manhood Peninsula was excluded from The Vincent Trust baseline survey of 1989 – 1990 it can be assumed that at the time there was a population of wild water voles and that they were spread across the area. This appears to still be the case but exact locations cannot be compared.

The management of water courses and wetland habitats for water voles is a challenging task across the Manhood Peninsula as this requires the knowledge and cooperation of a large number of landowners and interested parties. It is ten years since a farmers' pack, *Farming and Wildlife*, produced by the Chichester Coastal Plain Sustainable Farming Partnership was developed as a practical guide to monitoring and enhancing biodiversity of water courses, ditches and wetlands. It was distributed to landowners across the peninsula. The pack includes a topic on how to monitor water voles, and recommendations about what best practice management involves.

Surveys for water voles enable contact to be made with the landowner, for the sites to be described and for management issues to be addressed in conversation with the landowner or manager – e.g. such as the poaching of river banks by cattle.

Further action required:

- A full baseline survey needs to be carried out across the Manhood Peninsula
- Increase the focus on the identification and assessment of key areas of suitable riparian habitat at new survey sites so as to fill in gaps in our knowledge. This information will aid the understanding of water voles' migration across the peninsula and core areas.
- Develop a set of criteria to allow effective and rapid assessments of waterways thus permitting evaluation of their water vole potential. This would be a valuable tool.
- The need to ensure that there is connectivity between the sub-groups of the water vole population.



Chichester Golf Course - pristine habitat

Proposed actions with lead agencies

Policy and legislation

- **Incorporate water vole conservation into relevant habitat policies and agri-environment schemes. (5.1.2)**

This aim has been met in part. The status of the water vole has been upgraded to Endangered and the Wildlife and Countryside Act was updated in 2008 to include the water vole and to reflect the need for the greater protection of this species and its habitat.

The UK BAP was published in 1994, and the water vole was included as a priority species on account of a sustained dramatic loss of population and contraction of range given the loss of habitat and predation by the introduced invasive American Mink. A review of the UK BAP priority list took place in 2007 and the water vole was retained on the list as the reasons for its decline were still present. Actions identified by experts to halt the decline and to ensure long term survival were:

- Continue and extend the National Key Sites for water voles initiative.
- Identify Regional Key Areas for water voles following agreed methodologies.
- Establish and maintain a national water vole database and GIS. Continue or establish (as appropriate) and maintain a programme of regular monitoring in National and Regional Key Areas and at a sample of other sites.
- Maintain and, where appropriate, extend the area of suitable water vole habitat in National and Regional Key Areas
- Reduce the impact of mink predation, prioritising action in Regional Key Areas.
- Ensure appropriate protection of the water vole and its habitat under the Wildlife and Countryside act.

There are key farms on the peninsula through which rifes (channels of water) run and which have a network of ditches. Southend Farm, Donnington, is located in the centre of the peninsula and is signed up to the Higher Level Stewardship scheme and their Farm Environmental Plan lists the water vole as a key species for conservation. There are other such farms that span a large central area of the peninsula that could be aided and advised about farming with water voles in mind.

<u>Further action required</u>:

- Establish the names of landowners on the Manhood Peninsula
- Find out from landowners whether they have included information within their Farm Environmental Plans and ensure the inclusion of water vole conservation within the section on maintaining and increasing biodiversity.
- Ensure that farmers and landowners have copies of the Farming and Wildlife Pack, produced by the Chichester Coastal Plain Sustainable Farming Partnership, which provides a practical guide to monitoring and enhancing biodiversity of water courses, ditches and wetlands.
- Hold workshops for farmers/Parish councillors/residents about ditches, drainage and land management with water voles.

Site safeguard and management

- **Incorporate water vole conservation into integrated area management plans (e.g. local BAPs, Environment Agency Local Environment Agency Plans, integrated catchment management plans etc.), initially targeting areas as identified in Action 3 (5.2.3).**

The Chichester District Council's BAP does not specifically name water voles and it is only under the planning section that protected species are mentioned.

The Medmerry coastal realignment scheme has had a great deal of water vole mitigation work carried out as part of it but the results of the trapping and the sites of the relocation were not disseminated, despite interagency requests. It later transpired that they had been moved to Kent but they all succumbed to a bacterial infection and died.

Further action required:

- The CDC Environment Unit should consider specifying rare species, to include the endangered water vole, within its plan.
- Much better communication and cooperation between agencies interested in water vole and riparian habitat conservation should be sought, with regular meetings, discussions and sharing of survey information, planned works etc.
- Ensure that the water vole is included within the variety of activities being pursued by a range of statutory bodies and landowners.

- **Ensure information on water vole conservation requirements and appropriate habitat management is available to all riparian owners, managers and advisers (through guidelines and a practical Handbook of water vole conservation). (5.1.2) (5.2.2) (5.4.1)**

The Water Vole Conservation Handbook, third edition, was published in 2011. The specific farmers' pack, *Farming and Wildlife*, produced by The Chichester Coastal Plain Sustainable Farming Partnership, a practical guide to monitoring and enhancing biodiversity of water courses, ditches and wetlands is still relevant and available. Agencies such as the Sussex Wildlife Trust and the Manhood Wildlife and Heritage Group (MWHG), and their water vole Project Officer, are available for educational talks and specific advice.

Further action required:

- Disseminate advice sheets derived from the Water Vole conservation handbook and the farmers' pack
- Ensure everyone who needs advice can obtain it
- Put such advice on the Manhood Wildlife and Heritage Group website and ensure that advice is always available.

Species management and protection

- **Ensure appropriate protection under the Wildlife & Countryside Act for the water vole and its habitat.**

There have been occasions over the last couple of years when some landowners or managers have damaged water vole habitat on the peninsula and advice has been offered by the MWHG Community Wildlife Officer to prevent this happening again. A view has been taken to try and educate, and if necessary, encourage consultation with the West Sussex County Council (WSCC) ecologists, to encourage a change in attitude.

The Chichester Canal is an important wildlife corridor within the Manhood Peninsula which is under pressure from various recreational groups. It does have water voles living on it, despite some unsympathetic bank works taking place, but careful management must be planned to ensure the survival of the population along its length. The WSCC ecologist has sought to ensure that this advice is in place and, not only that, but is followed.

The Environment Agency ditch clearance work across the peninsula is sometimes very harsh and, although only one bank at a time is reported to be cleared, evidence has been gathered that the bank 'left' has also been significantly damaged/scraped/cut back. These have been on sites with a known water vole presence and include East Wittering ditch (SZ802 973) and the crooked ditch at Earnley (SZ814 967).

The Medmerry site has undergone some major changes that have affected water vole habitat and water voles directly. Individuals have been trapped and relocated and exclusion zones set up to prevent their return. Little is currently known about the specifics of this project such as, how many and what gender of the water voles were trapped, where they were relocated, and what the mortality rates were. A thorough baseline survey of this area should be carried out so that when the breach of the original sea wall occurs, any residual water vole population, and the newly relocated one, can be monitored.

<u>Further action required</u>:

- Need to have better reporting of damage to habitats and water vole populations – regular meetings between agencies.
- Need to work together and act quickly if habitat looks as if it is threatened (eg on the canal)
- Need to follow up if this proves to be an illegal act. This requires good monitoring and reporting and, where possible, prior consultation in order to ensure that damage does not occur.
- **Ensure that development schemes do not affect the integrity of water vole populations.**

Approximately 500 houses have been built across the Manhood Peninsula over the last 10 years and planning permission is currently being sought for more. There is the sense that with the creation of the South Downs National Park housing development is being pushed onto the flood plains to the south and this includes the Manhood Peninsula. The number of planning application for more development between Oct 2012 and March 2103 was approx. 200.

A large area of Almodington, a horticultural and agricultural area, has been bought by a company hoping to put glasshouses on it for lettuce production. This would, if permitted, effectively glass over

an area on the border of the new Medmerry RSPB reserve and near to Pagham Harbour Local Nature Reserve, two sites with water voles. Developments such as these push the water voles into ever smaller areas, contributing to fragmentation of the usable area and presents dispersal problems for the animal. As populations get smaller they are much more vulnerable to local extinction. The proposal and the following appeal was rejected (Sept 2012).

Further action required:

- Review large developments which could have adverse impacts on the Manhood Peninsula
- Ensure that all surveying records are sent to the Sussex Biodiversity Records centre.

- **Using survey information, identify sites which are suitable for re-establishing populations. (5.3.3)**

On the Manhood Peninsula water voles should spread naturally without interference if the water ways are suitable. It is anticipated that reintroductions would not be necessary and natural movement will repopulate areas.

Further action required:

- Ensure that the channels – whether rifes or ditches – are managed in such a way that they are usable by the water vole population.

- **Where necessary, employ appropriate mink control as a conservation tool to protect large breeding water vole populations. (5.3.2) (5.3.3)**

Mink control has been very successful on the Manhood Peninsula and given its shape and the availability of an experienced mink control expert. This has probably been a contributing factor for the continuing presence of the water vole. Mink control has been funded by the EA and RSPB via Pagham Harbour Local Nature Reserve. The last mink trapped was in the winter of 2009/2010 near to Pagham Harbour at Ferry Field.

Further action required:

If necessary, need to seek new source(s) of funding to continue to support mink control as there is still a feral population in Britain. Given that this predator is a highly mobile opportunist it may be only a matter of time before they arrive on the peninsula again. Need to alert the community to constantly keep an eye out for mink and report sightings.



Advisory

Future Research and Monitoring

- **Identify large, viable breeding populations of water voles and retain these with appropriate management and monitoring, from which a series of 'key areas' should be designated. (5.2.1) (5.5.4)**

Using the survey data from 2011 and the historic data, core areas where water vole populations are permanently present have been mapped, Appendix 6. These key areas should be managed with water voles at the centre of their planning, such as on Southend Farm, and support for monitoring and habitat enhancement offered. On a larger scale, the Manhood Peninsula should strive for designation as a key area for water voles in the county – i.e. a Nature Protection Area. However an application made in 2012 was unsuccessful.

Future action required:

- The designation of the Manhood Peninsula as a Nature Protection Area
- The continued mapping of water voles and their wetland habitats across the area.
- Continued monitoring programme
- Establish Volunteer survey team/ or a Water Vole Monitor in each of the 11 Parishes

- **Following relevant research, establish a co-ordinated programme of translocation and re-introductions of water voles with local provenance where it is deemed appropriate and effective. (5.5.5)**

This is inappropriate on the Manhood Peninsula where water voles are found across the area which are mobile. A licence would be required and this course of action is best avoided, it would be better to rely on habitat management and natural migration.

- **Promote European co-operation in the study and conservation of threatened populations of water voles. (5.5.1) (5.5.2)**
- **Ensure that the relative status and distribution of the water vole in Britain is monitored through repeats of the national baseline survey together with general catchment-based surveys in each region to determine the extent of the water vole populations and level of fragmentation of suitable habitat. (5.5.3) (5.5.4)**

This is being done with annual and bi-annual monitoring surveys and the information is inputted into the Biodiversity Records Centre so that it is available to all ?and contributed to the National Water Vole data collection point at the Hampshire Wildlife Trust

Further action required:

- Continual survey to be carried out and the information shared.

- **Continue existing and establish new national research initiatives on the ecology and conservation requirements of water voles. (5.5.1) (5.5.2)**

Brighton University and Aberdeen University are both currently carrying out research on water voles and Brighton is interested in carrying out work on the wild water vole population on the Manhood Peninsula. Support and help will be offered. Students from other universities such as Bournemouth and Oxford Brooks have also been supported with their field work for dissertation projects.

Further work required:

- Keep up links with outside organisations such as Brighton University and Aberdeen University, to be part of any research etc.
- Draw up list of suitable projects for MSc and PhD students
- Work with local colleges wanting to do ecological/geographical project work
- **Encourage the submission of data collated on a local level to LRC or BRC for incorporation into a national database, and to facilitate easier access to information. (5.5.6)**

This is an ongoing aim of the MWHG, which wants to share information and data and has done so since 2005. Input data into the National Water Vole Database and Mapping Project, established in 2008, which is managed by The Wildlife Trusts and delivered by a Water Vole Information Officer based at the Hampshire and Isle of Wight Wildlife Trust. The project aims to collate and map water vole and American mink data to assist with species monitoring and the development of conservation priorities. It is funded by the Environment Agency, People's Trust for Endangered Species, Royal Society of Wildlife Trusts and Scottish Natural Heritage.

Communications and Publicity

- **Encourage the publication of research papers and features in popular press, magazines and the broadcast media to raise the profile of the species.**
- **Prepare school educational resource material for nation-wide distribution. (5.6.1)**

Information is regularly sent to update the local community via the local press and media including the Chichester Observer, Selsey Life, TV South today et al

MWHG has prepared educational material for local distribution in the form of leaflets, a booklet on water voles, fact sheets, children's' activity packs and given lessons in schools about the importance of water voles.

Further action required:

- The provision of teachers' resource kits on a range of habitats.

Links with other action plans

Ensure that links with key partners are maintained and action plans adopted are relevant to all. There should be clear links with the national habitat BAPs, specifically the ones relating to Wetland areas, saline lagoons etc.

3. ACTION PLAN

The Action details set out below are shaped by the UK SAP and are an attempt to address the objectives and targets that are not yet being fully met on the Manhood Peninsula. With each objective and target identified, there is then a suggested action detailed and the specific action that the Manhood Wildlife and Heritage Group propose to take.

These actions must be viewed as a starting point and the priorities may change depending on funding and other unforeseen circumstances.



East Wittering



Bracklesham Bay Ditch



Chichester Canal



Bremere Rife

UK Species Action Plan objectives and targets	Action details specific to the Manhood Peninsula	Action by the Manhood Wildlife and Heritage Group
To arrest the decline and maintain the current distribution and status of the water vole in Britain. To restore water voles to their former widespread distribution, (i.e. to that before the 1989- 1990, baseline survey data) by the year 2010. To ensure management of watercourses and wetland habitats which will maintain the restored population.	Work with partners to identify new key survey sites for water vole monitoring. Work with Sussex Biodiversity Records Centre to increase the use of digitised data and mapping to plot the water vole populations across the Manhood Peninsula. Having criteria against which to assess ditches would also be a valuable tool. This would allow quick spot checks of water ways and an informed decision about their water vole potential.	Past: Water vole surveys of the Manhood Peninsula carried out since 2005. Present: Employment of a Water Vole Project Officer to coordinate 2011 population surveys, recruit and train volunteers and to start an education programme. Future: Organise a regular water vole meeting/workshop on the Manhood Peninsula with partners to share information, identify new sites to survey and to target key areas for more work. Research and develop a ditch assessment protocol that can be used by trained volunteers and which can then feed into a habitat restoration management plan for the area.
Incorporate water vole conservation into relevant habitat policies and agri-environment (A-E) schemes. (5.1.2)	Find out from landowners information within their Farm Environmental Plans and ensure the inclusion of water vole conservation from the maintaining and increasing biodiversity section.	Past: MWHG Wildlife Project Officer worked closely with interested farmers to give relevant habitat advice Present: Assisted Southend Farm, Donnington with water vole management, which is reflected in their Farm Environmental Plan Future: Collate a definitive list of landowners and managers on the peninsula and then detail whether or not they have an Environmental Management Plan, are signed up to any Stewardship schemes and, where possible, offer advice regarding the management of riparian habitats on their land. Continue to build a positive working relationship with landowners and managers on the peninsula.
Incorporate water vole conservation into integrated area management plans (e.g. local BAPs, Environment Agency LEAPs, integrated catchment	Ensure that water vole conservation is included in all local BAPs and that this is being followed through in the planning process.	Past: Environment Agency has helped to fund some previous water survey sessions through the MWHG. Present: Manhood Wildlife Alliance meetings.

UK Species Action Plan objectives and targets	Action details specific to the Manhood Peninsula	Action by the Manhood Wildlife and Heritage Group
management plans etc.), initially targeting areas as identified in Action 3. (5.2.3)	Work with partners to increase communication and cooperation on water vole and riparian habitat conservation.	Future: Organise a regular water vole meeting/workshop on the Manhood Peninsula with partners to share information, identify new sites to survey and to target key areas for more work.
Ensure information on water vole conservation requirements and appropriate habitat management are available to all riparian owners, managers and advisers (through guidelines and a practical Handbook of water vole conservation). (5.1.2.) (5.2.2.) (5.4.1)	Distribute the farmer's pack *'Farming and Wildlife, a practical guide to monitoring and enhancing biodiversity of water courses, ditches and wetlands*'.	Past: MWHG Wildlife Project Officer has actively disseminated the farmers' pack, *Farming and Wildlife,* to landowners, given talks and advice. Present: The MWHG Water Vole Project Officer has advised landowners and managers on future management issues after undertaking a survey. Future: The farmers' pack, *Farming and Wildlife* is still up to date and relevant and could be redistributed to landowners, especially any new ones identified in a previous action.
Ensure appropriate protection under the Wildlife & Countryside Act for the water vole and its habitat.	Need to have better reporting of damage to habitats and water vole populations – interagency cooperation would be of benefit. Need to work together and act quickly if habitat looks as if it is threatened.	Past: MWHG have advised the CDC where habitat has been affected by poor management. Present: The MWHG has approached the Chichester Canal Society about some of their bank work and brought it to the attention of the WSCC Ecologist. Future: Organise a regular water vole meeting/workshop on the Manhood Peninsula with partners to share information, which could include vulnerable sites and areas of concern.
Ensure that development schemes do not affect the integrity of water vole populations.	Development schemes are a significant risk to water vole populations. Interagency cooperation is key and sharing of information.	Past: All survey records have been passed quickly to the Sussex Biodiversity Records Centre SBRC Present: Records have been sent to the SBRC and some mapping of the most recent surveys completed. The recent development of the CDC Green Network Maps helps to inform planners about vulnerable and potentially important sites (recent update?).

UK Species Action Plan objectives and targets	Action details specific to the Manhood Peninsula	Action by the Manhood Wildlife and Heritage Group
		Future: Organise a regular water vole meeting/workshop on the Manhood Peninsula with partners to share information, which could include vulnerable sites and areas of concern. Ensure that all surveying records are sent in a timely manner to the Sussex Biodiversity Records Centre.
Where necessary employ appropriate mink control as a conservation tool to protect large breeding water vole populations. (5.3.2)	Ensure that a long term stable mink programme is funded.	Past: The WSCC and the EA have paid for an expert to carry this out. Present: Last mink trapped was in 2009 on the Ferry Field at PHLNR. Source of funding always needed. Future: Establish sustainable source of funding for mink control
Identify large, viable breeding populations of water voles and retain these with appropriate management and monitoring, from which a series of 'key areas' should be designated. (5.2.1) (5.5.4)	Follow up the designation of the Manhood Peninsula as a Nature Protection Area.	Past: Survey sites did identify 'strong hold' areas. Present: Recent survey shows a widely dispersed population but conditions at survey time very dry. Future: Work with the partners, specifically the Chichester Harbour Conservancy, to apply for designation as an NPA. Keep surveying to identify core areas within the Manhood Peninsula.
Ensure that the relative status and distribution of the water vole in Britain is monitored through repeats of the national baseline survey together with general catchment-based surveys in each region to determine the extent of the water vole populations and level of fragmentation of suitable habitat. (5.5.3) (5.5.4)	Continual survey need to be carried out and the information shared.	Past: Surveys carried out regularly since 2005. Present: Survey of 52 sites in 2011 and large bi annual surveys in 2012 and 2103 carried out with new landowners continually approached to add new survey sites to portfolio. Future: Continue annual and bi annual monitoring surveys across the peninsula with inclusion of new sites. Ensure that all surveying records are sent in a timely manner to the Sussex Biodiversity Centre. Share information with other agencies.

UK Species Action Plan objectives and targets	Action details specific to the Manhood Peninsula	Action by the Manhood Wildlife and Heritage Group
Continue existing and establish new national research initiatives on the ecology and conservation requirements of water voles. (5.5.1) (5.5.	Encourage any approaches for research on the peninsula and offer advice and practical help.	Past: Surveys fairly localised. Present: actively followed up any expressions of interest to survey or carry out research on the Manhood Peninsula's wild water vole population. Future: Keep up links with outside organisations, Brighton University's and Aberdeen University's students specifically and actively agree to be part of any research etc. Build links with others e.g. Portsmouth, University of Chichester, Bournemouth, and Oxford Brooks.
Prepare school educational resource material for nation-wide distribution. (5.6.1)	Provide teachers with resource kits on a range of habitats.	Past: Not much focus on educating children and schools on water voles. Present: The start of a programme to up the profile of the water vole across the schools on the peninsula. The creation of lessons, resource packs and activity sheets. Future: Continue to work on educational resources, and actively offer to give talks and lessons.
Links with other action plans e.g. wetland and saline lagoons	Ensure that links with other key partners are maintained and action plans adopted are relevant to all.	Past: have tried to maintain links with other partners. Present: With the employment of the MWHG Water Vole Project Officer, there has been a focus on the issues and someone for other agencies to clearly communicate with. Future: Organise a regular water vole meeting/workshop on the Manhood Peninsula with partners to share information, identify new sites to survey and to target key areas for more work.

4. FUTURE WORK REQUIRED AND RECOMMENDATIONS

The work funded in 2011 by the Big Lottery Community Wildlife Grant allowed a review to be undertaken of the progress to date of the Biodiversity Action Plan for water voles on the Manhood Peninsula. The analysis highlights a number of targets that need more work and this section describes the areas that the Manhood and Wildlife Heritage Group aim to focus on in the future.

i. The continued employment of a **Water Vole Project Officer** to focus attention on the endangered water vole and to be a first point of contact for other agencies, schools and volunteers. Having a dedicated role that concentrates on this species will help to shine a spotlight on this flagship species in its increasingly threatened habitat.

ii. **Mink control** across the peninsula is crucial to maintain the population of water voles. Even a single mink would have a devastating impact very quickly and so having an expert with traps already in place at key access points is important. Currently the EA and RSPB fund mink trapping on and around their sites but for long term sustainability a wider monitoring approach may be necessary. This could require a new source of funding and the solution may be for all the interested agencies on the peninsula to contribute to this, thus sharing the financial burden.

iii. To invite partner organisations to create a **water vole forum** for the Manhood Peninsula that meets quarterly to share information, identify new sites for surveying, discusses areas of concern, updates members on any work being carried out etc. This would allow strategic planning across the whole peninsula to take place with all partners working together towards the single vision of safeguarding the long term survival of the only wild population of water voles in west Sussex.

iv. To create a coherent forward plan of **water vole surveying** and ditch assessment across the peninsula, followed by a period of ditch enhancement where it has been assessed as being necessary and beneficial. This would be based on information gathered as part of actions v and vi.

v. Increase the number of **sites surveyed** for water voles, particularly on waterways that may provide distribution routes across and off the peninsula, linking it with the wider area. These areas specifically to include:

- Mapsons Farm
- Itchenor Estate
- North Mundham, South Mundham and Runcton
- Apuldram and Donnington
- Chichester Golf Course, Hunston - Bremere Rife
- Ham and the Medmerry re-alignment site

vi. Identify and carry out **habitat improvement work** with practical conservation, specifically to include:

- Mile Pond Farm, Donnington (SZ852 037)
- Southend Farm, Donnington (SZ 848 008)
- Birdham village pond (SZ 824 005)
- Florence Pond, Sidlesham (SZ 854 989)

vii. Research and develop a set of **ditch assessment** criteria that can be used by trained volunteers to grade ditches for their water vole habitat potential.

viii. Initiate and implement a **condition assessment** of rifes and ditch riparian habitats within parish boundaries on the Manhood Peninsula, with a view to creating Parish Habitat Action Plans for each one. Selsey Parish Biodiversity Action Plan was the first Parish BAP in the UK.

There are 11 Parishes on the Manhood Peninsula, which comprises the civil parishes of Apuldram, Birdham, Earnley, East Wittering and Bracklesham, Donnington, Hunston, North Mundham, Selsey, Sidlesham, West Itchenor and West Wittering, based on the recognised local government boundaries effective at 1st January 2009. When mapped it can be seen that the parishes in total contain an enormous length of ditches whose overall potential to accommodate a strong and secure water vole population is huge. By encouraging parishes to take a more active role in the monitoring and management of these potentially rich biodiversity assets, the extensive length of inland waterways of each parish could have enormous conservation potential. See Appendix 4.

ix Work with the EA and the RSPB to assess the impact of the coastal re-alignment work at the **Medmerry site** on the water vole population.

x. To actively raise the **profile** of the water vole and how special it is, especially on the Manhood Peninsula, through education and workshops to recruit and train volunteers. We want to inspire and enthuse where previously interest has fizzled out, specifically:

- In schools, where it fits in with curriculum area.
- Through Parish Council talks.
- Increased use of putting on displays at a variety of events.
- Through the provision of teaching materials such as a leaflet, children's activity sheets, fact sheets, booklet and teacher's wetlands habitat resource kit.
- Recruitment of volunteers - via a wide range of disseminating information
- Through articles in the local press and magazines.

Forward Plan timescales:

2012	• Recruit volunteers, run training courses and work on list of local landowners and those with A-E agreements; Draw up draft Vision for future of the MP via workshops; Draw up Ditch Condition assessment form. Identify gaps in coverage; Survey one Parish fully and report results to Sussex Biodiversity Records Centre.
2013	• Consolidate production and trialling of educational resources
2014	• Pursue Vision for MP using water voles to promote the repair and enhancement of the environment.
2015	• Establish a lead water vole volunteer attached to each Parish
2016-2020	• Draw up a plan to finish coverage of the MP to same standard. Establish monitoring programme every 3 years.

5. SUMMARY

The water vole is an iconic wetland species whose numbers have declined dramatically over the last 30 years across the UK. The Manhood Peninsula supports the most robust, native and sustainable population in West Sussex and there is an opportunity to increase the profile of this charismatic small mammal and use it as a flagship species to conserve the wider riparian ecosystem. This will only be successful with inter-agency cooperation, sustainable educational programmes for the local community, for children and adults, and with the help of a large team of dedicated and trained volunteers. With such an important species under threat across the UK, the Manhood Wildlife and Heritage Group is committed to this long term conservation effort.



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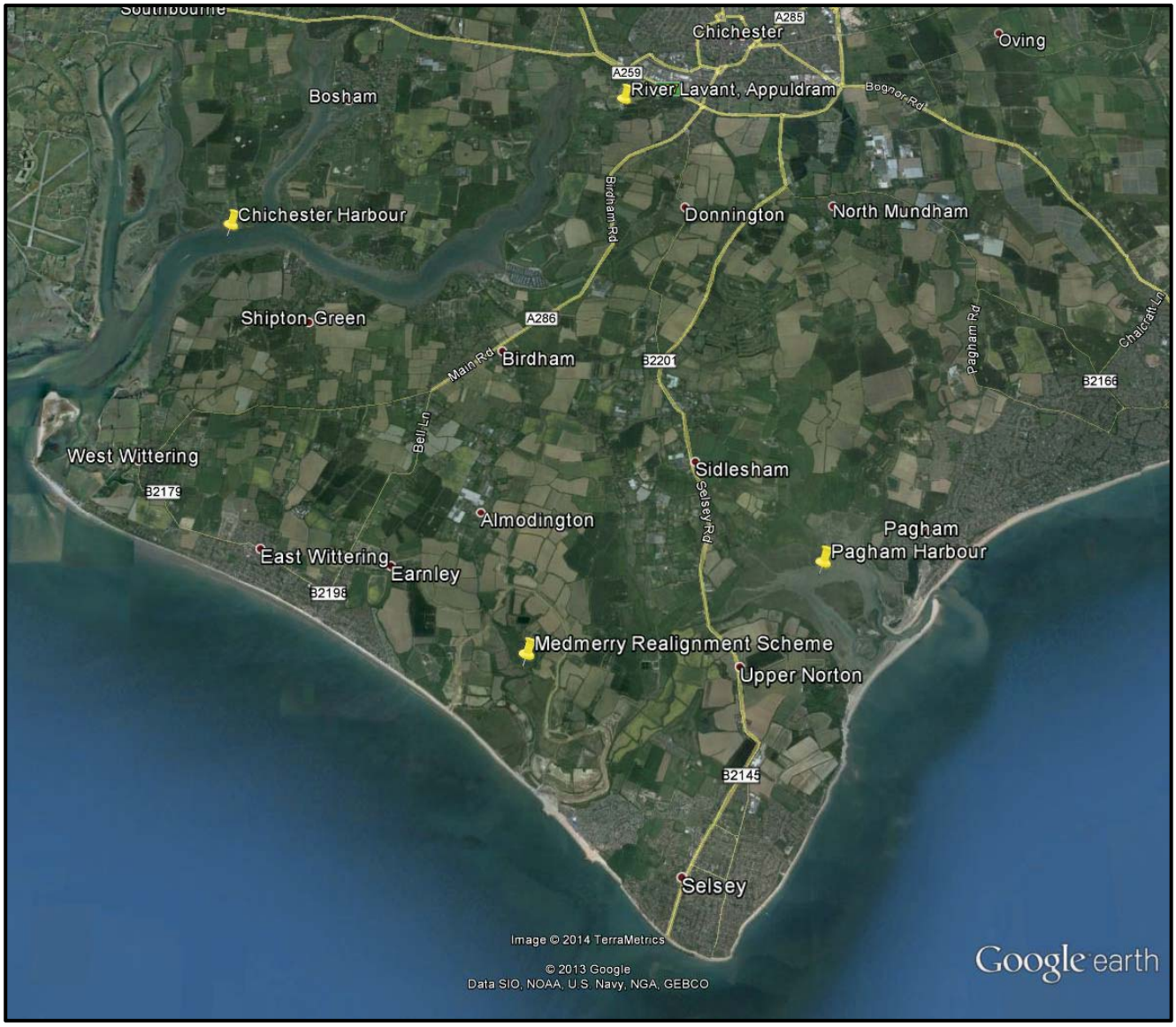
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APPENDICES

A.1 Map of the Manhood Peninsula



Map showing Chichester to the north of the Manhood Peninsula and Selsey at the very south. Pagham Harbour Local Nature Reserve can be seen to the east and Chichester Harbour to the west. The Medmerry coastal realignment site between East Wittering and Bracklesham, and Selsey.

A. 2 MWHG Water Vole leaflet

Protection and Conservation for Water Voles

- The water vole is classified as Endangered, meaning that numbers have decreased so rapidly that they could become extinct if we don't look after them.
- This scarce mammal is now legally protected – it is illegal to damage, destroy or obstruct access to any place which water voles use for shelter or protection, or to disturb a water vole while using such a place.
- Since April 6th, 2008, it has become illegal to kill, take or injure, possess or sell water voles.
- Under this law it is illegal to handle a water vole or trap any without having a licence which can be issued by Natural England.

Water voles need us and we need them

- Water voles need us to provide them with the right kind of places to live, with a good variety of plants for them to eat and to move about without being seen by the creatures which like to eat them.
- Water voles are a flagship species for the peninsula – a strong healthy population needs good places to live and this helps other species such as the otter.

What can we do to help?

- Find out where water voles are living by carrying out surveys looking for their signs.
- The Manhood Wildlife and Heritage Group (MWHG) provides training to enable people to do this safely – both for you and for the water vole.
- Such surveys enable the MWHG to map the places the water voles are using and to estimate how many animals there are.
- Survey information enables the landowner to manage their ditch, pond or rife with water voles in mind.
- MWHG carries out conservation work to make sure that the wetlands are suited to the water vole.
- Good habitat for water voles also ensures homes for other creatures including insects, plants, frogs, fish and birds.
- An otter has been spotted swimming off West Wittering – they might move onto the peninsula if the conditions are right.
- Get involved, have fun, make new friends and help us safeguard Britain's rarest mammal.

Contact
Manhood Wildlife and Heritage Group
Jill Sutcliffe, Chair
Tel: 07747 022 727 or
email chairman@mwhg.org.uk
Visit the website to keep up with what's happening: www.mwhg.org.uk

Illustrations by John Davis

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Water Voles



Photo © 2011 Terry Whitaker

Water voles and the Manhood Peninsula share an important relationship:

We need them and they need us!

LOTTERY FUNDED

What are Water Voles?

- They are small mammals that live in and around water.
- Their bodies are adapted to life in and out of the water with two layers of fur to keep them waterproof.
- An adult is about the size of a small guinea pig.

Habitat – where water voles live

- Water voles live in wetland habitat where there are clean, slow flowing streams, rivers, ditches or rifes and/or ponds, with plenty of plants along the edges.
- They live in burrows, which they dig, in the side of steep muddy banks by the water.
- They need plenty of plants growing on the banks both for food and to hide in.



Photo © 2011 Jane Reeve

Bracklesham Bay Park Ditch



What do they eat?

- Water voles are mainly vegetarian and use their sharp orange teeth to feed on some 227 different species of plant.
- They leave many signs of their feeding, such as cut stems and trimmed lawns of short vegetation, around the entrances to their burrows and at their feeding stations.

Life Cycle

- Water voles breed from spring to autumn having some 5-8 litters of young a year with 2-5 babies each time.
- The young grow quickly and are ready to move out of the burrow and leave their mother after 3 weeks.
- Most water voles live for less than a year but some can live for 2-3 years.

Signs and clues

- Water voles are quite shy but we can see that they are around as they leave clues.
- Neat piles of cut up vegetation.
- Burrows with carefully nibbled lawns around the entrance.
- Footprints and runways along the bank.
- They keep their burrows very clean by removing their droppings and piling them in a latrine.

Importance of the Manhood Peninsula

- Despite the UK losing some 95% of its water vole population, the only native population of water voles in West Sussex lives on the Manhood Peninsula.

Threats

- Water voles have become much rarer.
- They have declined in numbers due to loss of the places that they like to live in, from pollution and from being eaten by the American mink.
- Predators are numerous as many animals like to eat water voles, including foxes, herons, domestic dogs and cats, and fish such as pike.
- The American mink, an introduced non-native species, has decimated the UK water vole population.
- Ditches are cleared out by machinery that destroys the plants on the banksides.
- The banks of streams and rivers often get reinforced with concrete which means that the water vole cannot dig burrows.
- Farm animals destroy banks as they want to drink the water in ditches or ponds.



A.3	**Partnership Groups**
CDC	Chichester District Council
CHC	Chichester Harbour Conservancy
EA	Environment Agency
MWHG	Manhood Wildlife and Heritage Group
MPP	Manhood Peninsula Partnership
NT	National Trust
PHLNR	Pagham Harbour Local Nature Reserve
RSPB	Royal Society for the Protection of Birds
SxBRC	Sussex Biodiversity Records Centre
SWT	Sussex Wildlife Trust
WSCC	West Sussex County Council



Medmerry



Broad Rife, Selsey



Morgan's Pond Almodington



Long Ferry Pool, PHLNR



Crooked ditch, Earnley

A.4 Parish waterway lengths in kilometres

Parish	Approximate length of potential waterways
Apuldram	8.4km
Birdham	12.0km
Donnington	10.4km
East Wittering and Bracklesham Bay	20.2km
Hunston	25.0km
Itchenor	10.4km
North Mundham	25.0km
Selsey	47.2km
Sidlesham	42.8km
West Wittering and West Itchenor	21.0km
Total	**234.4km**

Parishes just outside the Manhood Peninsula

Parish	Approximate length of potential waterways
Bosham	9.2km
Fishbourne	7.0km
Pagham	25.0km
Total	**34.9km**

A.5 Water vole survey sites across the Manhood Peninsula 2011



Sites not mapped due to time constraints:

Crablands Meadow, Selsey – no water voles found (SZ 847 935)

The Severals, Church Norton, - water vole evidence found (SZ 873 949)

Chichester Canal, Crosbie Bridge and Stockbridge – water voles evidence found (SZ 854 019 and SZ 859 033)

Park Farm Ditch, Selsey – water vole evidence found (SZ 865 944)