

Ponds for water voles



Ponds can be great refuges for water voles, especially where mink are present on local rivers. Ponds that hold water throughout the year and have soft steep or stepped banks fringed with lush vegetation make ideal homes for water voles.

Water voles eat vegetation that grows in and around ponds and they use the water as a means to escape from predators. The loud 'plop' water voles make as they jump into water warns others nearby of a predator's presence. Diving into deeper areas and kicking up sediment from the bottom creates a cloud to hide behind while they escape into an underwater burrow entrance.

IDEAL PONDS FOR WATER VOLES

Ponds naturally fill with sediment and become drier over time. All stages of pond development provide important habitat for wildlife and where possible it is best to create new ponds rather than clearing vegetation and sediment from existing ponds.

However, if removing vegetation and silt is the only option to keep a pond open remember to:

- Carry out the works during the winter
- Leave vegetation on the pond bank overnight to allow animals to crawl back to the pond
- Leave a section of undisturbed vegetation as a refuge during works
- Do not cut into banks where water voles have burrows or disturb their burrow entrances!

Leave a buffer strip of tall grasses and flowering plants around at least half of the pond as cover from predators.

When creating a pond for water voles there are a few points to consider:

- The shape of the land, the nature of the substrate and the presence of existing watercourses nearby may all determine your pond design. For example, if your land is on clay soils you may be able to excavate a pond that will naturally retain water. Water from a nearby stream could be used to feed a pond or it may even be possible to create a pond on the line of an existing stream.

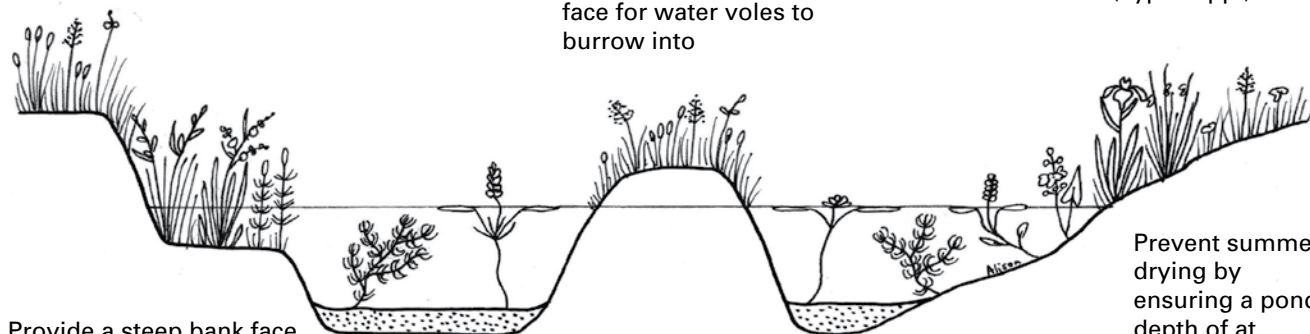
- A good size for a water vole pond is 10m x 10m. Design a pond so that it has a varied shoreline and bank profile, with steeper bank sections that will provide burrowing opportunities. Allow a dense fringe of marginal vegetation to grow to provide food and cover. Providing shallow sloping sections will create suitable habitat for invertebrates such as dragonflies and damselflies.
- Creating spits, bays and islands will increase the length of bank edge, thereby maximising the area that water voles can use.
- Ponds should ideally be 1m deep or more to ensure year-round water and to limit the encroachment of bankside vegetation.
- Do not line ponds. Water voles have burrow entrances above and below the water level that enable them to escape predators on land or in the water. Soft-lined ponds are likely to be damaged by water voles and hard-lined ponds will reduce its suitability for them.



Include a shelf to create a dense fringe of marginal vegetation (sedges & rushes) that provide food and cover

Islands within the pond increase the bank face for water voles to burrow into

Avoid using invasive plants such as common reed (*Phragmites* spp.) or reedmace (*Typha* spp.)



Provide a steep bank face to at least a third of the pond edge to support burrow systems

De-silt without interfering with banks

Prevent summer drying by ensuring a pond depth of at least 1m

WHERE?

Ponds for water voles need to hold water but cannot be lined, so choose a naturally damp area where groundwater will fill the pond. Ponds that dry up occasionally are not ideal for water voles but will still be used by them and are also good for great crested newts as they are not suitable for fish.

A complex of ponds will be of more interest and value if you have the space. When choosing a site for a new pond, avoid areas that already have wildlife interest and check the location of service cables and drains. Select an open area away from overhanging trees.

WHEN?

Works should be carried out between October and February to avoid the water vole breeding season. This will also avoid disturbing nesting birds and breeding or young great crested newts, both of which are protected by law.

WHY?

Creating lush marginal vegetation on shallow banks provides food and hiding places for water voles. Steeper banks create perfect burrowing sites, with burrow entrances above and below the water level.

The natural population structure of water voles relies on small colonies spread throughout an area, so the more pockets of good habitat the better. Furthermore, water voles are vulnerable to mink predation, especially on rivers, streams and canals, and so need refuges away from main waterways for their long-term survival.

BEFORE YOU START

- Water voles and their burrows are protected by law and must not be disturbed. If in doubt about whether works would disturb water voles contact the Wildlife Trust for help.
- Consent may be needed from the Environment Agency if your pond is to be created near a river or if spoil from pond creation is to be deposited in the floodplain. www.environment-agency.gov.uk
- Planning permission may be needed for pond creation. Contact your local authority planning department for more information.
- See our factsheet on plants to find out what is good to plant in or near ponds and what to avoid.

FURTHER INFORMATION

**Water Vole Conservation Handbook,
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