Drainage channels that regularly contain standing or flowing water can support a rich variety of wildlife. They also form important corridors that allow species to move through the countryside. The wildlife value of drainage channels is greatly influenced by their management and that of the surrounding land. Drainage channels that regularly contain standing or flowing water can be specifically managed under Environmental Stewardship.

**BENEFITS FOR WILDLIFE**

**A rich wildlife habitat**
Clean water provides habitat for numerous aquatic plants, invertebrates such as dragonflies, water beetles and snails, and vertebrates such as otters, water voles, fish and amphibians.

**Ditches can be attractive feeding habitats for numerous birds**
The edges of ditches are a particularly good source of insect food through the spring and summer. Such areas are known to be valuable for yellow wagtails, song thrushes, starlings, reed buntings, tree sparrows and wading birds such as lapwings. Open water can attract feeding kingfishers and water rails.

**Ditches can provide nesting habitat**
Taller vegetation at the fringes of ditches can provide nesting habitat for species such as reed buntings and grasshopper, sedge and reed warblers.
HOW CAN I MANAGE DRAINAGE CHANNELS?

**Water quality**
- High water quality is essential to the wildlife value of drainage channels. The agricultural management of the surrounding land strongly influences water quality, so ensure potential pollutants are stored, handled and used carefully.
- Local Environment Risk Assessment for Pesticides (LERAP) and deflector plates on fertiliser spinners help keep inputs away from water. Slurry and manure should not be spread within 10 m of water bodies.
- **ELS** **OELS** **HLS** **SA** Create buffer strips adjacent to drainage channels to help keep inputs away.
- Timely application and appropriate rates of inputs reduce leaching and wastage.
- Good soil management on grass and cropped land retains valuable topsoil and minimises nutrient-loaded sediment entering water bodies.
- Visual monitoring of water bodies can give an indication of quality. Clear water, a range of plants and abundance of insects are signs of good water quality.

**Cleaning management**
- Each phase, from recently cleared to silted and well vegetated, has its characteristic wildlife.
- **ELS** **OELS** A ‘little and often’ approach to cleaning, so that the ditch system is cleared gradually over a number of years, rather than all in one go, ensures the continuity of this range of habitats. Avoid cleaning between March and the end of August. Herbicides should not be used to control vegetation in ditches or on ditch banks.
- If long stretches have to be cleared in one go, leave a third of the width unexcavated in order to maintain a fringe of aquatic plants. Next time, this side can be cleared and a third left on the other side. If this would seriously affect land drainage, consider widening small sections, perhaps at channel intersections, so that some silted and vegetated areas can remain.
- Weed cutting buckets enable excessive vegetation to be removed while retaining many aquatic plants, extending the gap between full clearances.
- In large drainage systems, a mixture of dredging rotations may be appropriate, with channels having the greatest drainage function being dredged on a more regular basis than others.
- Level dredging away from the bank.

**Drainage channel banks**
- Maintain a variety of habitats on drainage channel banks.
- **HLS** Some species require particular ditch profiles. While water voles and kingfishers prefer steeper banks, the majority of wetland plants and invertebrates require very shallow water. Shallow ditch edges of less than 45° are particularly important in areas where waders breed to provide access to insect rich feeding areas and prevent chicks being trapped in steep-sided ditches.
- **ELS** **OELS** On arable land, cut banks on a rotation to create a variety of habitats. Cutting should be avoided between March and the end of August.
- Grazing ditch edges benefits annual plants and a variety of invertebrates. However, fencing off some sections will provide taller vegetation, benefiting species like the reed buntings and water voles.
- Allowing isolated trees or patches of scrub to develop can add to the habitat mosaic, but avoid shading out large sections of the ditch. Where the surrounding land has the potential to support breeding wading birds such as lapwings, avoid planting new trees or hedges, keep existing hedges short and consider bringing ditch-side willows into traditional pollard management. Vantage points for predators can discourage waders from nesting.
- Ditches can be widened at intersections or along short stretches to create shallow water and exposed mud. These invertebrate-rich areas are beneficial to many birds. A sluice or sandbags could be used to keep such areas wet into late June.

You can get further information on this and other ways of managing your farm for wildlife from:

- **RSPB**
  - Agricultural Adviser, The RSPB, UK Headquarters, The Lodge, Sandy, Bedfordshire SG19 2DL
  - Tel: 01767 680551
  - www.rspb.org.uk/farming

- **FWAG**
  - Farming and Wildlife Advisory Group, NAC, Stoneleigh, Kenilworth, Warwickshire CV8 2RX
  - Tel: 024 7669 6699
  - www.fwag.org.uk

- **The Game Conservancy Trust**
  - The Game Conservancy Trust, Fordingbridge, Hampshire SP6 1EF
  - Tel: 01425 652381
  - www.gct.org.uk

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For answers to all of your farm wildlife enquiries, visit www.farmwildlife.info