



TREE PLANTING

Tree planting and management of woodland areas can take place at a range of scales throughout the catchment from the river's source to floodplains. It aims to improve infiltration and reduce surface water runoff by intercepting rainfall before it reaches the ground and enters the watercourses. Tree planting is a long-term upstream management solution, yet offers some short term benefits, such as reduction in soil erosion.

Hedgerows

These act as an extra weather barrier to intercept rainfall and slow water runoff from the land. They can be planted across slopes and between farmland and they also help to provide shelter to livestock and habitats for birds and insects.

Woodland creation

Woodland is great for intercepting rainfall which increases evaporation of water from the leaves. Less water reaches the ground which reduces the volume entering watercourses. Trees also help to stabilise soils, increase infiltration and provide habitats. Willow coppice plantations are effective at slowing surface runoff so can be utilised to reduce flood risk whilst being an energy crop that provides income to landowners.



Riparian planting and buffer strips

Buffer strips may consist of long grasses and shrubs, increasing roughness and providing a physical barrier to slow the flow of water into a watercourse. They can be created next to watercourses which helps to increase infiltration and stabilise banks, therefore helping to reduce sediment runoff and soil erosion.

Catchment planting

Deep rooting systems can be planted in waterlogged soils suffering from compaction to maximise soil stability and infiltration. Tree spacing, density and species affect their ability to store and evaporate water and reduce flood flows. Planting further up in the catchment reduces the amount of water reaching watercourses.

Benefits

- Reduces the volume of rainfall that reaches the ground, potentially reducing flood risk.
- Increases the amount of carbon absorbed by trees, helping to reduce carbon emissions.
- Provides wildlife habitats and livestock shelter.
- Stabilises soils and prevents soil erosion.
- Commercial woodland can generate income.