Wortley Catchment NatureBid Specification

Buffer Strips

Why?

Fenced off buffer strip. ©*Yorkshire Wildlife Trust.*

Buffer Strips provide the following NFM benefits:

- *Areas of greater vegetation volume (grasses, shrubs, or trees) intercept more rain and reduce the volume of water reaching waterways.*
- *Vegetation improves 'hydraulic roughness' of the ground which slows surface water runoff.*
- *Vegetation reduces the risk of erosion and bank collapse along riverbanks, decreasing sediment build-up downstream.*
- *Increased water uptake from the vegetation strip reduces overland flow which may impact roads and properties nearby.*

Additional benefits include:

- *Increased volumes of vegetation bind and strengthen riverbanks, which reduces erosion (causing river siltation) and traps field runoff (fertilisers, pesticides, and soil) to improve water quality.*
- *Planting trees along rivers can provide shade in aquatic environments and improve habitat for species.*
- *Across farmland, mixed vegetation strips are wildlife corridors and improve species' ability to move across the landscape, and as habitat for ground nesting birds and small mammals.*
- *Planting trees within buffer strips can sequester carbon, help with climate regulation and help improve canopy cover across the Aire catchment from its current level of 6%.*

Benefits for your farm:

- *Less ditch management is required as a decrease in overland runoff reduces levels of siltation and nutrients which cause weed growth in channels.*
- *Buffer strips can help create straighter field edges which can improve crop management efficiency.*
- *By fencing off areas along rivers there is reduced risk of livestock catching waterborne diseases, and shrubs and trees can provide shelter for livestock.*
- *Buffer strips can increase soil moisture which can improve growth of field grass and provide habitat for species beneficial to crops – e.g., pollinators and predators of pest species.*
- *Buffer strips reduce the effects of spray drift from plant protection products.*
- *Reduction in loss of fertilisers and soil caused by surface runoff –10m wide vegetation strips can reduce sediment loss by 30%.*
- *Less nitrogen is lost through leaching as there is take up by vegetation growing on buffer strips.*

Specifics for intervention:

What	*<u>Riparian buffer strips:</u> fenced off areas of grasses, shrubs and trees planted alongside watercourses. <u>In-field buffer strips:</u> areas of planted grasses, shrubs and trees/ uncultivated or undrilled areas along field boundaries or across fields.*
Where – location	*Bids for these measures are considered for anywhere in the Wortley catchment.*

Where – site selection	*Suitable across the catchment, particularly important on grazed fields close to watercourses which have a high sediment load, and on fields of 'high-risk' crops.* *The wider the buffer strip the more environmentally beneficial.*
When	*In field buffer strips should be established in Autumn or Winter* *When cutting is required, this should be no later than March to reduce run-off and provide habitat for wildlife.* *Buffer strips should be in place for at least 18 months, from when the crop is drilled until harvest of the following year, as runoff and soil erosion can be greatest if crops are harvested during poor soil conditions.*
How	*In-field buffer strips:* *Buffer strips should be between 2 and 6m wide and should run in a consistent strip along the field margin/across the field. Width should depend on the length and steepness of field slope, with those on a greater angle requiring wider buffer strips to manage runoff.* *On field headlands soil compaction should be minimised to encourage infiltration into buffer zones.* *During the establishment of buffer strips weeds should be removed and topsoil should be aerated, and in the first year regularly cut to discourage weeds and encourage tillering of cover vegetation.* *'Weeds' are defined as injurious weeds, non-native invasive species and bracken and nettles and can be removed using herbicides, however no other fertilisers or manures should be added to the strips.* *A green cover crop may be planted along buffer strips during spring, however no other cropping is permissible, and strips cannot be stocked or used to turn vehicles.* *Appropriate species:* *Gentle slopes (up to 3°) – plant flower rich margins to encourage natural regeneration of vegetation.* *Moderate slopes (3° to 7°) – tussocky grass should be used in areas prone to runoff, otherwise use guidance for gentle slopes.* *Steep slopes (more than 7°) – tussocky grass should be predominant through the margin (suggested 10% cocksfoot or timothy grass, 90% mixed grasses).* *If trees are planted, a mix of heights are recommended – for example, hawthorn and hazel should be planted alongside willow, alder, and birch.* *Riparian buffer strips:* *Buffer strips should be between 4 and 6m wide on cultivated land, or fields that are grazed intensively.* *Buffer strips should be between 12 and 24m wide next to land identified as at risk to significant soil erosion.*
Must knows	*Drinking provisions must be provided for livestock (see specification on drinking points), and buffer strips must be properly fenced to stop livestock access.* ***Please account for fencing that encloses the entire buffer strip when considering your bid.*** *For instances where walls, hedgerows or fencing currently exist and would act to protect the proposed buffer strip from one side, or for riparian buffer strips adjacent to the river bank, single fencing only may be required.* ***You do not need to make a separate bid for fencing.*** *Tree planting along buffer strips can provide greater NFM advantages, as can leaky dams along riparian buffer strips. Scrapes can also be situated along buffer strips to maximise use of unproductive land for NFM interventions.*

Ongoing maintenance requirements – Low

In-field buffer strips:

- *If buffer strips are to be permanent, they should be cut as infrequently as possible, no less than once every three years. Whether this is necessary is dependent on colonisation of weeds along the strips, which needs to be monitored.*
- *Fencing must be maintained and checked after periods of flooding.*

Please note: Interventions must be completed by 31st December 2026.

If you have any questions or require any more information please contact
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