

## EFS AGREEMENTS COMMENCING 01 JANUARY 2023

<b>Option Name:</b>	<b>Creation of riparian buffer – 10 metre width – planted with native trees</b>
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<b>Option Code:</b>	<b>BWT</b>
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<b>Option Payment:#</b>	Year 1: £8.67 per m Year 2 – 5: £0.36 per m each year
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<b>Option Aim(s):</b>	To plant native trees and shrubs to establish a 10 metre wide buffer next to a watercourse which will reduce the potential for pollution from fertilisers and pesticides. Riparian buffers planted with native trees can also reduce soil erosion, river siltation, transportation of diffuse pollutants and reduce peak flood flows.
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<b>Scheme Applicability:</b>	Wider – EFS(W) <input checked="" type="checkbox"/>	Higher – EFS(H) <input checked="" type="checkbox"/>	Group – EFS(G) <input checked="" type="checkbox"/>
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<b>This option is made up of:</b>	Annual Management requirements <input checked="" type="checkbox"/>	NPI (capital items) <input checked="" type="checkbox"/>
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<b>This option is:</b>	Permanent <input checked="" type="checkbox"/>	Rotational <input type="checkbox"/>
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<b>Option Description and Outcome:</b>	This Option is a combination of essential non-productive investments (referred to as capital works) to establish the Option with a range of recurring annual management requirements to ensure successful establishment, retention and maintenance of the Option. Payment for the essential capital works is included in the Option payment rate. For EFS(H) sites the 'Creation of riparian buffers – 10 metre width – planted with native trees' Option is eligible where it will maintain and enhance the water quality and biodiversity value of these sites and is included in the site specific Remedial Management Plan (ssRMP). Native trees are planted in blocks in a 10 metre wide buffer along a watercourse which will provide water quality and biodiversity benefits. Furthermore, the trees will sequester carbon. A watercourse is defined as a 'dry sheugh, wet sheugh, stream, river, lake or waterway which is at least one metre wide on average' and a 'riparian buffer' refers to the area along a watercourse and standing waters, such as lakes or ponds.
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**Choice of site:** Suitable sites include designated and undesignated watercourses which are prone to bank erosion, where bankside damage or runoff have occurred or where there is limited riparian vegetation.  
‘Creation of riparian buffers – 10 metre width – planted with native trees’ must not be sited on Permanent Grassland Sensitive (PGS) fields or on breeding wader sites.

**Essential capital works:** Creating the ‘Creation of riparian buffers – 10 metre width – planted with native trees’ by erecting the protective fence, gate(s) and gate posts, planting the native trees and shrubs and erecting tree guards and canes are considered as essential capital works.

**Additional optional capital works available for this Option:** Gate and two gate posts – stock-proof fence  
Drinking trough  
Drinking trough base  
**Drinking trough pipe work – not available for Tranche 6 agreements starting 01 January 2023**  
Pasture pump and associated pipe work

**Length Permitted:** **Minimum** 10 m **Maximum** As per max agreement value\*

\* DAERA reserves the right to limit a Higher Level agreement value where it considers appropriate to ensure value for money.

### Requirements and Controls:

Code	Non-productive investment requirements (capital works)	Control type <sup>(1)</sup>		
		Admin	CwRS	OTSC
<b>BWT1C</b>	Complete all non-productive works required (erection of protective fence, gate(s) and gate posts, planting native trees and shrubs and erecting tree guards and canes) by 1 <sup>st</sup> June <sup>(2)</sup> in the first year of the EFS agreement.	✓		✓
<b>BWT2C</b>	Complete the claimed area of ‘Creation of riparian buffer – 10 metre width - planted with native trees’ in the correct location in the field(s) where the Option has been approved. The watercourse must be within the boundary or touching the boundary of the field in which the BWT has been claimed. The entire length of the watercourse along one field boundary must be fenced. Internal watercourses (not along a field boundary) must be fenced on both sides.		✓	✓
<b>BWT3C</b>	An average of 10 square metres per one metre length of ‘Creation of riparian buffer – 10 metre width - planted with native trees’ must be established.		✓	✓
<b>BWT4C</b>	Plant the trees at approximately 2.50 metre spacing (this is approximately 1600 trees/ha or 320 trees/0.20 ha in the planted blocks).		✓	✓

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<b>BWT5C</b>	Plant the trees and shrubs in seven metre x four metre blocks with approximately 10 metres between blocks and protect from grazing livestock.			✓
<b>BWT6C</b>	Plant native trees and shrubs from the tree and shrub species list in Table 1 below to the Specification given.	✓		✓
<b>BWT7C</b>	Protect each tree and shrub with a new tree guard and cane to the standard given in the Specification below.			✓
<b>BWT8C</b>	Erect a 'Creation of riparian buffer – 10 metre width - planted with native trees' protective fence to the standard given in the Specification below on the field side of the riparian buffer.	✓	✓	✓
<b>BWT9C</b>	Erect a minimum of one 4.27 metre gate and two gateposts to the standard given in the Specification below in each 150 metre linear length of protective fence or part 150 metre of protective fence.		✓	✓

(1) The possible control types for each requirement may be:

'Admin' – administrative checks, 'CwRS' – Control with Remote Sensing, 'OTSC' – On-the-Spot Check

Code	Annual management requirements	Control type <sup>(1)</sup>		
		Admin	CwRS	OTSC
<b>BWT1M</b>	Retain and manage the same area and location of 'Creation of riparian buffer – 10 metre width - planted with native trees' for the duration of the EFS agreement. Under this option, farmers will be paid for a period of 5 years and must retain the buffer for an additional period of 10 years. Farmers can claim the Basic Payment Scheme for the length of the commitment (inclusive of the retention period) if Single Farm Payment was claimed and paid on the land in 2008.		✓	✓
<b>BWT2M</b>	Maintain the 'Creation of riparian buffer – 10 metre width - planted with native trees' protective fence, gate(s) and gateposts in a stock-proof condition for the duration of the EFS agreement.		✓	✓
<b>BWT3M</b>	Successfully establish the newly planted native trees and shrubs for the duration of the EFS agreement.		✓	✓
<b>BWT4M</b>	The riparian buffer must not be grazed.		✓	✓
<b>BWT5M</b>	Do not cut the two metre strip nearest the watercourse between the planted blocks.			✓
<b>BWT6M</b>	No fertilisers (organic or inorganic) may be used.	✓		✓
<b>BWT7M</b>	The 'Creation of riparian buffers – 10 metre width – planted with native trees' Option must be established, retained and managed as detailed in the ssRMP for EFS(H) sites.	✓		✓
<b>BWT8M</b>	Field records detailing area established, location, date established and all Management Requirements including Integrated pest Management (IPM) requirements.	✓		✓

(1) The possible control types for each requirement may be:

'Admin' – administrative checks, 'CwRS' – Control with Remote Sensing, 'OTSC' – On-the-Spot Check

## **EFS AGREEMENTS COMMENCING 01 JANUARY 2023**

### **Specification for native tree planting:**

'Native tree whip' must be:

- suitable native species (see Table 1 below);
- protected from grazing livestock;
- successfully established; and
- planted and maintained as detailed in the ssRMP, for EFS(H) sites.

### **Specification for 'Spiral tree guard and cane':**

- 'Spiral tree guard' must be at least 0.60 m tall and a minimum 38 mm diameter;
- all canes must be a minimum 90 cm long; and
- 'Spiral tree guard and cane' must be erected and maintained as detailed in the ssRMP for EFS(H) sites.

### **Specification for 'Stock-proof fencing':**

- All remnant fence material must be removed before erecting the 'Stock-proof fencing'.
- New materials must be used for 'Stock-proof fencing'.
- The fence must be erected to BS 1722-2:2006.
- The minimum standard for 'Stock-proof fencing' is galvanised woven wire and three strands line wire **or** five strands line wire.
- The overall height of the fence must be at least 1.20 m from the ground to the top wire.
- Straining posts must be equivalent in strength and durability to 125 mm top diameter round timber or 125 mm x 125 mm sawn timbers.
- Straining posts must be set at centres not exceeding 150 m or at each change in direction or gradient.
- Struts must be equivalent in strength and durability to 75 mm top diameter round timber or 75 mm x 75 mm sawn timber.
- Struts must be mortised into the straining post.
- Intermediate posts must be equivalent in strength and durability to 75 mm top diameter round timber or 75 mm x 75 mm sawn timber and set at centres not exceeding 3.00 m.
- Intermediate wooden posts must be at least 1.83 m long.
- All posts must be free of bark.
- Posts must have a potential minimum 15 year life, clearly indicated on manufacturer's literature/invoice or on application of a subsequent treatment again clearly indicated on manufacturer's literature/invoice. Where wooden posts have been treated with a preservative, this must have been applied by the manufacturer.
- Use strands of galvanised 4 mm mild plain steel wire or 2.5 mm barbed wire.
- The 'Stock-proof fencing' must be properly strained and secured to posts with galvanised staples or appropriate fastenings (such as galvanised wire or bespoke fasteners).
- 'Stock-proof fencing' must be erected as detailed in the ssRMP, for EFS(H) sites.

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### **Specification for 'Gate and two gate posts':**

- new materials must be used;
- the claimed number of 'Gate and two gate posts - stock-proof fence' must be erected in the correct location in the field(s) where it has been approved;
- the gate, gate posts and gate hangers must be galvanised to the relevant British Standard;
- the minimum standard for a gate is a six bar gate with bracing. Gates must be soundly framed and constructed with steel piping or rectangular hollow section or similar metal;
- the overall height of the gate must be at least 1.10 m from the bottom of the bottom rail to the top of the top rail;
- the minimum width of the gate opening must be 4.27 m;
- gate hanging and closing posts must be at least 114 mm diameter x 3 mm thick steel piping or similar metal;
- gate hanging and closing posts must be set in concrete;
- the gate must be fitted with all fittings needed for its operation and be hung in a satisfactory manner;
- the gate must not open outwards on to a public road; and
- 'Gate and two gate posts - stock-proof fence' must be erected and maintained as detailed in the ssRMP, for EFS(H) sites.

### **EFS(W) agreements started 1<sup>st</sup> July 2017 - 12 month and 18 month payment requirements**

If you complete all non-productive works required (erection of protective fence, gate(s) and gate posts, planting native trees and shrubs and erecting tree guards and canes) by 31<sup>st</sup> December 2017 in the first year of the EFS agreement and all other requirements relating to this Option as stated in the 'Requirements and Controls' section above, you will be eligible for an 18 month payment of £8.31 per metre in the Year 1 period from 1<sup>st</sup> July 2017 to 31<sup>st</sup> December 2018.

### **Further Advice:**

A watercourse is defined as a 'dry sheugh, wet sheugh, stream, river, lake or waterway which is at least one metre wide on average' and a 'riparian buffer' refers to the area along a watercourse and standing waters, such as lakes or ponds.

Do not establish a wooded riparian buffer where you or Rivers Agency may need access to the watercourse for maintenance purposes.

Approval should be sought from DFI Transport NI before new gates and gate posts, fencing are erected along a roadway.

If you intend to complete this option on a march boundary, you should ensure that you have fully discussed and agreed that you can carry out the option requirements and controls on the march boundary with the person who has control of the neighbouring land.

The steel piping or rectangular hollow section or similar metal of the gate should be at least 1.50 mm thick.

For stock-proof fencing, straining posts should be at least 2.10 m long when not set in concrete and at least 1.87 m long when set in concrete. Struts should be set at least 450 mm into the ground. To allow for future adjustments and to prevent damage to the galvanising, staples

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should be driven in at an angle, but not fully home. Do not attach the 'Stock-proof fencing' to trees, hedgerows or electricity poles and do not block or restrict rights of way.

Trees should not be planted on any farmland habitat, for example, species-rich grassland, heather moorland or above the natural tree line. Trees should not be planted within 20 metres of overhead power lines, or other overhead and underground services, close to buildings or where they will interfere with future farm development.

Trees should not be planted near roadsides, at lane or road junctions where the line of vision could be obstructed

The area to be planted should contain 70% tree species such as oak, alder, Scots pine, wild cherry, willow and crab apple and 30% shrubs such as hazel, holly, guelder rose, blackthorn, hawthorn, whin (gorse) and dog rose. Non-native trees considered to be invasive include beech, sycamore, Norway maple, grey alder, lodgepole pine and western hemlock. These must not be planted.

### Plant Health:

Experience of diseases like *Chalara* dieback in ash and *Phytophthora ramorum* in larch has highlighted the impact that introduced plant pests and diseases can have on the environment.

When sourcing plants for planting, reduce the risk of introducing or spreading plant pests and diseases by sourcing from within a reputable supply chain.

Further information on plant and tree health is available on the DAERA website at: <https://www.daera-ni.gov.uk/topics/plant-and-tree-health>

Prior to planting grass sites, spot spray patches, one metre in diameter, with an approved herbicide three - four weeks before planting where this can be justified as part of the implementation of IPM. Approved herbicides/pesticides may only be applied to the area of the riparian buffer if justified as part of the implementation of IPM, including for the control of noxious weeds or invasive species by spot spraying of an approved herbicide.

Plant individual trees in the centre of these areas, taking care to firm the soil around the tree. Tree guards and canes must be used for all trees and shrubs planted.

Plant trees between November and mid-March, but not when the soil is frozen or waterlogged.

Bare-rooted feathered 'whips' or cell grown plants should be planted and have advantages over larger 'standards'. If there is a delay between purchase and planting, trees should be 'heeled into' moist soil. When planting, care should be taken so that the bare roots do not dry out. Keep the whips in a bag or covered with loose moist soil until you are ready to plant.

Table 1 gives a guide to suitable tree and shrub species. Take into account soil type, drainage, exposure and look at the trees growing in the surrounding location. Note that sycamore and beech are not included in Table 1.

### Table 1: List of tree and shrub species suitable for planting a riparian buffer

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Tree species		Shrub species
Include willow and at least three other species in the mix of trees used.		Include hawthorn and at least one other species in the mix of shrubs used.
Alder Birch Willow Crab apple Oak Scots pine Wild cherry Hazel Rowan	Whitebeam Juniper Wych elm Aspen Holly Wild pear Wild plum/Damson Bird cherry	Guelder rose Blackthorn Hawthorn Hazel Whin (gorse) Holly Dog rose

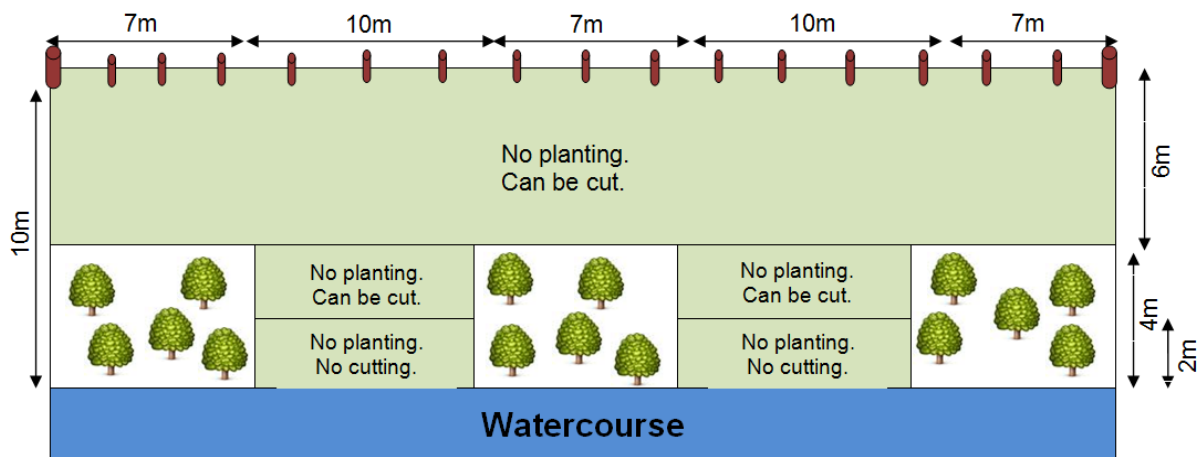
**Figure 1: 10m wide Riparian buffer planted with native trees – planting plan**


(Diagram not to scale)


Spacing for planting is 2.50 metres (approximately 1600 trees/ha).

Plant in seven metres x four metre blocks with five trees/shrubs in each block and approximately 10 metres between planted blocks. The riparian strip must not be grazed.

An access gate (min. width 4.27 metres) must be provided every 150 metres, or part thereof.



 70% Native tree / 30% shrub

 Stockproof fence

For successful planting follow these guidelines:

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- keep the roots moist at all times;
- make the planting pits big enough for the roots. Excessively long roots may be trimmed prior to planting;
- plant trees at the same depth at which they were growing in the nursery, shown by the lighter soil mark on the stem close to the roots;
- plant trees with the stems upright;
- firm the soil around the plants by treading it firmly with your heel;
- on normal soils dig holes/pits for planting or cut an L - or T - shaped notch in the ground where the tree is to be planted;
- on wet sites, planting on mounds or ridges will give the tree extra height above the wet soil and is useful on poorly drained soil. However, there is a danger of the mound drying out, thereby putting the tree survival at risk. Mounds have the added advantage that they may reduce weed competition in the first year;
- the soil in compacted areas should be loosened prior to planting. Ripping or deep subsoiling may be necessary; and
- weeds and grass should be controlled, in an area of about one metre diameter around each tree for two - three years after planting, or until the trees have successfully established. Weed control can be achieved by hand weeding, placing down squares cut from old silo covers or old carpet, or using a 10 - 15 cm deep mulch such as bark or lawn clippings or with herbicides approved for use on young trees. Mowing or scything grass around the trees is not recommended as this encourages grass growth.