CYMBELINE MEADOWS HEDGEROW MANAGEMENT PLAN 2007 – 2016

December 2007 Sonya Lindsell

Contents

Cymbeline Meadows Hedgerow Management Plan 2007 – 2016
Abstract

- There are over 7km of hedgerow and woodland corridor on site.

- In the 2007 Site Management Plan 'Section 2.2 Hedgerows' it gives a brief history of the hedgerows on site and also states the hedgerow management responsibilities of the farmer so these will not be repeated here.

- In the 2007 Site Management Plan it high lighted a need for a specific hedgerow management plan.

- The issues arising that have led to the need for a specific hedgerow management plan are as follows:
    1. The hedgerows have been neglected since the initial investment in them in the 1990's when Countryside Stewardship was granted.
    2. In some cases the hedge species used for planting at this time were not ideal (a high proportion of tree species rather than thorn species).
    3. Stock fencing has been neglected, in some cases, and stock are able to graze the hedgerows.
    4. Tree guards have been left on far too long leading to bark damage. Where there has been gap planting weeds are smothering the new plants.
    5. Established hedgerows are becoming tall and leggy rather than dense and bushy due to ineffective trimming.
    6. Currently it is unclear when it comes to hedge management on site as to what the Farmers responsibilities are and what the Rangers responsibilities are.

- The hedgerow management plan aims to address all of these issues resulting in a more comprehensive hedgerow system which is aesthetically pleasing, much improved for wildlife and in keeping with the local environment. It should result in benefits to the Farmer by increased ELS points and thus grant aid.

- The hedgerow management plan contains maps clearly defining each hedgerow and individual hedgerow descriptions. It contains maps detailing who is responsible for what and breaks down the management into three year cycles to coincide with the trimming regimes. It contains a break down of the estimated costs involved in hedgerow maintenance and it aims to vary the management over the site between hedge laying, coppicing, planting and trimming resulting in a varied hedge structure and composition.

- It is hoped that most of the future hedgerow management will be carried out by volunteers. This gives local people the opportunity to put some thing back into their environment, feel a real sense of achievement as the hedgerows develop and get the benefits of fresh air, exercise and social interaction.

- Previous spend on hedgerow management and projected costs:

Year	Site total budget (£)	Amount spent on hedgerow management (£)	Percentage
2006	3900	990	25%
2007	4300	1100	25%
2008	To be confirmed	Estimated - 2130 (1350 on original hedgerows + 780 on hedges in new meadows)	

(For full cost break down see Appendix 3)

- The 'New Meadows' (see Map 1) acquired in 2007 contain 5 additional hedges which will obviously require maintenance (hedge numbers 22, 23 and 25 to 27). This will incur an additional estimated cost of £780 each year.

Hedge Descriptions 2007

Hedge numbers correspond to those detailed on **Map 1**
Hedge shape letters correspond to the diagrams detailed in **Appendix 1**
For explanation of other variables and abbreviations see glossary

Hedge Number: 1	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 2 – 2m **Width:** 1.5m **Length:** 198m **Shape:** A – Rectangle with severe birds nest effect **Age:** 30+	97% Hawthorn, 30cm staggered planting 3% Other (Elder, Elm, Field Maple) No hedge tree standards.	N – PROW mown grass path S – Council yard, cattle yard, private land.	N – Faced back and topped every other year to allow access.

Hedge Number: 2	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 1.5 – 3m **Width:** 1.8m **Length:** 90m **Shape:** C **Age:** 30+	70% Blackthorn 18% Gap 14% Other (Elm, Rose, Hawthorn, Elder) 6 Field Maple hedge tree standards	W – PROW dirt track E – Scrub covered ditch and bank of about 10m width extending beyond the length of the hedge, acting as a woodland corridor	W – Faced back every other year to allow access

Hedge Number: 2a + 3a	**Species composition**	**Adjacent land use**	**Past/current management**
Height: - **Width:** 10m + **Length:** 2a 178m 3a 360m **Shape:** **Woodland corridor following** Rail line embankment **Age:** 30+	Elder, Hawthorn, Oak, Field Maple, Holly	N – Rail line S – Grazing meadow	Left as area of scrub acting as woodland corridor – no current management.

Hedge Number: 3	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 4 – 6m **Width:** 1m **Length:** 270m **Shape:** H **Age:** 10yrs	First 80m 100% Hawthorn The rest, 38% Hawthorn 14% Crab apple 10% Prunus spp 7% Salix spp 5% Oak 5% Rose 5% Blackthorn 5% Field Maple 4% Wayfaring tree 6% other (Ash, Holly, Elder, Broom)	E – Arable field conservation headland, 7yr old plantation. W – Grazing meadow	Hedge planted approx 10yrs ago, single line with tree guards. Winter 2006 topped at 2m and 11 hedge trees selected.

Hedge Number: 4	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 4 – 6m **Width:** 3m **Length:** 117m **Shape:** F **Age:** 10yr coppice growth	58% Blackthorn 28% Elm (19% dead) 7% Gap 5% Hawthorn 2% Rose	E – 12yr plantation W – 1.5m deep ditch with rabbit fence along bank, adjoining arable field	Coppiced approx 10yrs ago – no other management since

Hedge Number: 5	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 0 **Width:** 0 **Length:** 0 **Shape:** - **Age:** -		E – 17yr plantation W – 12yr plantation	No hedge line exists, just a line of trees incorporated into the plantation.

Hedge Number: 6	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 6 – 8m **Width:** 2m **Length:** 147m **Shape:** F **Age:** 15yr coppice growth	46% Elm (7% dead) 30% Blackthorn 9% Hawthorn 9% Cherry 3% Gap 3% other (Spindle, Elder, Dogwood, Rose, Salix Spp) 3 standards – Alder, Cherry, Oak	N – Vehicle track with public pedestrian access S – 1.2m ditch adjoining arable field	Coppiced approx 15yrs ago N faced back every other year for access.

Hedge Number: 7	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 3 – 3m **Width:** 2m **Length:** 70m **Shape:** A - rectangle **Age:** 20+	50% Hawthorn 50% Laylandi	E – Private Garden W - Arable field	Faced back both sides and topped every year

Hedge Number: 8a	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 1 – 5m **Width:** 2m **Length:** 137m **Shape:** D **Age:** 20+	38% Blackthorn 25% Elm (24% dead) 18% Gap 16% Hawthorn 3% Other (Rose, Oak) Bramble entangled throughout 5 Oak standards	E - Vehicle track with pedestrian public access W – 1m deep ditch adjoining arable field	E - faced back every year for access

Hedge Number: 8b	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 1 – 5m **Width:** 2m **Length:** 144m **Shape:** D **Age:** 20+	32% Blackthorn 27% Gap 21% Dogwood 11% Hawthorn 7% Elm (43% dead) 2% Rose	E – Scrub covered slope down to grazing meadow W – Vehicle track with pedestrian public access	W – faced back ever other year to allow access Old cattle fencing replaced spring 2007 with new, repositioned to the bottom of the slope

Hedge Number: 9a	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 0.8m **Width:** 1m **Length:** 121m **Shape:** G partial stake and bind **Age:** 15yr	24% Blackthorn 21% Hawthorn 21% Oak 17% Field Maple 6% Rose 5% Hornbeam 4% Spindle 3% Salix spp Blackthorn suckering all along Meadow side	N – Vehicle track with pedestrian public access S – Grazing meadow	Single row of planting between double rows of cattle fencing. Removed tree guards, N row of cattle fencing, laid the hedge winter 2007.

Hedge Number: 9b	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 4 - 6m **Width:** - **Length:** 124m **Shape:** E **Age:** 20+	All individual standards, 3 oaks 4 Hawthorns 1 Rose - The rest is grazed grass.	S – Vehicle track with pedestrian public access N – Grazing meadow	None

Hedge Number: 10a	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 5 - 6m **Width:** 4m **Length:** 127m **Shape:** D **Age:** 20+	53% Blackthorn 24% Elm (4% dead) 12% Hawthorn 5% Rose 5% Salix Spp 1% Elder 1 Oak standard 2 Field Maple and 1 Salix, large, mature coppice stools.	E – Vehicle track with pedestrian public access W – 1m deep dry ditch, thorn growth in the ditch base and up the other bank adjoining graving meadow	Evidence of coppicing in the past E - Faced back irregularly for access.

Hedge Number: 10b	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 5 - 8m **Width:** 4m **Length:** 127m **Shape:** D **Age:** 20+	29% Field maple 20% Blackthorn 18% Gap 10% Hawthorn 10% Hazel 6% Elm 5% Dogwood 2% Rose	W – Vehicle track with pedestrian public access E – Privately owned grazing meadow	Evidence of coppicing in the past W - Faced back irregularly for access.

Hedge Number: 11a	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 7 - 9m **Width:** 3m **Length:** 116m **Shape:** D **Age:** 20+	36% gap 27% Salix Spp 19% Field Maple 8% Alder 6% Hawthorn 4% Elm All Salix are massive coppice stools. 2 Field Maple and 1 Alder, large, mature coppice stools.	E – Grazing meadow W – 1m deep ditch, adjoining arable field	Evidence of coppicing in the past

Hedge Number: 11b	Species composition	Adjacent land use	Past/current management
Height: 7 - 9m **Width:** 5m **Length:** 87m **Shape:** E **Age:** 15	6 massive mature Salix coppice stools covering a distance of 30m, the rest is unplanted 'gap'. Two of the stools are growing up from the ditch bottom.	N – Grazing meadow S – Grazing meadow	Evidence of coppicing in the past. Some collapsed branches have been removed.

Hedge Number: 12	Species composition	Adjacent land use	Past/current management
Height: 5 - 6m **Width:** 5m **Length:** 17m **Shape:** H **Age:** 15	48% Hawthorn 48% Salix spp 4% Other (Field Maple, Blackthorn)	E – Grazing meadow with pedestrian public access W – Grazing meadow with pedestrian public access	Single row planting either side of ditch about 15yrs ago, still with tree guards, no management since planting.

Hedge Number: 13	Species composition	Adjacent land use	Past/current management
Height: 5 - 7m **Width:** 5 - 11m **Length:** 919m **Shape:** H **Age:** 10	38% Hawthorn 22% Field Maple 12% Ash 9% Salix Spp 6% Gap 3% Beech 3% Blackthorn 2% Hazel 2% Rose 2% Cherry 1% Oak	N – Grazing meadow with pedestrian public access S – Road side tree planting creating woodland corridor	Staggered planting still with spiral tree guards, no management since planting.

Hedge Number: 14	Species composition	Adjacent land use	Past/current management
Height: 1 - 4m **Width:** 2m **Length:** 70m **Shape:** H **Age:** 15	34% Hawthorn 18% Blackthorn 18% Gap 15% Salix Spp 6% Field Maple 4% Spindle 4% Rose 1% Birch	E – Grazing meadow with pedestrian public access W – Grazing meadow with pedestrian public access	Single row planting still with spiral tree guards, no management since planting.

Hedge Number: 15	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 4 - 6m **Width:** 2m **Length:** 81m **Shape:** C **Age:** 15	33% Blackthorn 19% Rose 15% Hawthorn 9% Gap 7% Crab apple 7% Salix spp 4% Oak 6% Other	E – Grazing meadow with pedestrian public access W – Grazing meadow with pedestrian public access	Staggered planting about 15yrs ago, still with tree guards, no management since.

Hedge Number: 16	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 1 - 7m **Width:** 1 - 5m **Length:** 513m **Shape:** One half B, other D **Age:** 4 – 20+	25% Blackthorn suckering on meadow side creating scrub in some areas. 4 Cherry, 2 Hornbeam, 2 Elm, 2 Field Maple Standards 44% Hawthorn 10% Rose 10% Elm (27% dead) 8% Gap 6% Ash 5% Blackthorn 4% Dogwood 3% Apple 2% Hornbeam 2% Field Maple 2% Oak 2% Spindle 2% Rowan	N – Conservation headland adjoining arable field, public access S – Grazing meadow with pedestrian public access	Some staggered planting and hedge tree planting about 15yrs ago – still have tree guards. Some gapping up 4yrs ago, tree guards, mulch mat and annual weeding round young plants carried out.

Hedge Number: 17	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 2m **Width:** 1.5m **Length:** 226m **Shape:** A rectangle **Age:** 15	42% Blackthorn 24% Field maple 10% Ash 6% Cherry 6% Hawthorn 5% Spindle 5% Rose 2% Other (Oak, Holly)	N – Conservation headland adjoining arable field S – Wildflower Meadow, picnic area with pedestrian public access	Planted in a single row 15yrs ago, tree guards now removed. Topped to 2m and N faced back in winter 07. 10 Hedge trees selected.

Hedge Number: 18	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 2 - 6m **Width:** 3m **Length:** 260m **Shape:** D 2/3 on W, 1/3 on E of ditch **Age:** 20+	32% Blackthorn 25% Hawthorn 21% Gap 11% Salix spp 6% Elm 2% Other (Elder, Broom, Rose) 1% Holly 2 large, mature Salix coppice stools	E – Conservation headland adjoining arable field with pedestrian public access W – Arable field	Neglected

Hedge Number: 19	Species composition	Adjacent land use	Past/current management
Height: 3 - 3m **Width:** 1m **Length:** 150m **Shape:** A rectangle **Age:** 20+	100% Hawthorn	N – Private land S – Vehicle track with pedestrian public access	Faced back and topped annually

Hedge Number: 20	Species composition	Adjacent land use	Past/current management
Height: 4 - 6m **Width:** 1 - 3m **Length:** 169m **Shape:** F with standards **Age:** 15	55% Blackthorn 15% Elm (10% dead) 14% Gap 6% Field Maple 6% Other (Oak, sycamore, Elder, Hawthorn, Rose) 4% Salix spp 2 Oak, 2 Field Maple standards	E – Conservation headland adjoining arable field W – 1.6m ditch adjoining arable field	Evidence of some coppicing 10 – 15 yrs ago and 5 – 7yrs ago.

Hedge Number: 21	Species composition	Adjacent land use	Past/current management
Height: 1 - 6m **Width:** 1 - 3m **Length:** 219m **Shape:** D **Age:** 20+	51% Elm (27% dead) 33% Gap 7% Hawthorn 3% Elder 3% Blackthorn 2% Populus spp 1% other (Lime, Sycamore, Oak, Ash, Cherry, Rose) 2 Ash, 2 Lime, 1 Field maple standards	N – 1m ditch adjoining easy access public footpath S – Private land, sports field and tennis courts	Evidence of some coppicing and pollarding to a height of 1m.

Hedge Number: 22	Species composition	Adjacent land use	Past/current management
Height: 3 - 6m **Width:** 3 - 10m **Length:** 191m **Shape:** C **Age:** 20+	31% Gap 28% Elder 17% Blackthorn 13% Elm (29% dead) 10% Hawthorn 1% Holly 1 Field Maple, 3 Oak standards	E – Scrub on a steep sloping bank creating a woodland corridor, adjoining grazing meadow W - Conservation headland adjoining arable field with pedestrian public access	Neglected

Hedge Number: 23	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 1 - 3m **Width:** 1 - 3m **Length:** 155m **Shape:** E **Age:** 20+	70% Gap 14% Hawthorn 9% Elder 4% Blackthorn 2% Elm (60% Dead) 1% Oak Bramble growing over old rabbit fencing	E – Scrub on a steep sloping bank creating a woodland corridor, adjoining grazing meadow W - Conservation headland adjoining arable field with pedestrian public access	Neglected

Hedge Number: 24	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 4 - 4m **Width:** 2m **Length:** 63m **Shape:** B but not gappy **Age:** 20+	61% Hawthorn 28% Blackthorn 6% Elm 5% Elder	N – Private garden S – Arable field	None

Hedge Number: 25	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 4 - 5m **Width:** Fenced area 10m **Length:** 313m **Shape:** E **Age:** 50+	35% Hawthorn 29% Gap 25% Blackthorn 3% Elder 4% Elm (33% dead) 3% Salix Spp 1% Rose Dead Ash standard 3 Oak, 4 Salix and 1 Field maple standard	N – Grazing Meadow S – Grazing Meadow	Neglected Spring 07 installed cattle fencing either side of hedge line

Hedge Number: 26	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 4 - 5m **Width:** Fenced area 13m **Length:** 280m **Shape:** E **Age:** 50+	35% Hawthorn 33% Blackthorn 21% Gap 4% Field maple 3% Salix Spp 2% Rose 1% Elder 1% Other (Elm, Oak) 4 Oak, 1 Alder, 1 Ash standard	N – Grazing Meadow Internal wet ditch S – Grazing Meadow	Neglected Spring 07 installed cattle fencing either side of hedge line

Hedge Number: 27	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 7 - 10m **Width:** 10m **Length:** 342m **Shape:** D **Age:** 30+	45% Blackthorn 45% Hawthorn 8% Elder 1% Rose 1% Elm 3 Oak, 1 Field Maple standard Some Bramble thickets	N –Woodland grassy ride, public pedestrian access S – 20 - 30m scrub woodland corridor habitat on a slope to marshy area of grazing meadow	Neglected Lots of old stock fencing within the scrub.

Hedge Number: 28	**Species composition**	**Adjacent land use**	**Past/current management**
Height: 2m **Width:** 1m **Length:** 147m **Shape:** H **Age:** 7yrs	29% Field Maple 2% Blackthorn 6% Rose 27% Prunus spp 2% Hazel 27% Hawthorn 2% Lime 3% Other (Broom, Beach, Birch)	N – Rabbit fence, 12yr old plantation S – Rabbit fence, line of 12 yr old avenue trees adjacent to vehicle track with public pedestrians access	Winter 07 topped at 2m, took out a row of adjacent plantation trees, put in second row of rabbit fencing enclosing hedge line.

Hedge Number: 29	**Species composition**	**Adjacent land use**	**Past/current management**
Height: - **Width:** - **Length:** 317m **Shape:** - **Age:** -	No hedge exists at present	N – Arable field S – Vehicle track with public pedestrians access	Opportunity for hedgerow creation

Hedge Number: 30	**Species composition**	**Adjacent land use**	**Past/current management**
Height: - **Width:** - **Length:** 292m **Shape:** - **Age:** -	No hedge exists at present	Encloses private land	Opportunity for hedgerow creation

Cymbeline Meadows Hedgerow Management Plan 2007 - 2016

2007 = yr 0 2016 = yr 5
2008 = yr 1 2017 = yr 6
2009 = yr 2 2018 = yr 7
2010 = yr 3 2019 = yr 8
2015 = yr 4 2016 = yr 9

Management option abbreviations correspond to those detailed in **Appendix 2**
N, S, E, W – corresponds to which face of the hedge is being specified
Cost – whether or not a cost will come out of the Council budget
R – Ranger, **V** – Volunteers, **C** – Contractor (including BTCV), **TF** – Tenant Farmer, **P** – Private land owner
Arisings (see appendix 2) applies to all hedgerows

Hedge Number	**Current / Initial management** 0-3 years	*Who*	*Cost*	**Medium term management** 3-6 years	*Who*	*Cost*	**Long term management** 6-9 years	*Who*	*Cost*
1	FB2**E** Top I.e. continue with current management until secure fencing has been installed around the council yard.	TF TF	0 0	Install secure fencing FB2**E** Top	RC TF TF	✓ 0 0	CL – will depend on talks with neighbour	RVC	✓
2	Top FB2**W** FB3**E** R Elder Gap Guards Weed	C C TF RV RVC	✓ ✓ 0 0 ✓	Weed FB2**W** FB3**E** Top	RV C TF C	0 ✓ 0 ✓	Top FB2**W** FB3**E**	C C TF	✓ ✓ 0
2a, 3a	FB3**S** Leave as unmanaged woodland corridor	TF	0	FB3**S** Leave as unmanaged woodland corridor	TF	0	FB3**S** Leave as unmanaged woodland corridor	TF	0
3	R Guards HT Topped Jan 07 Lay (not including hawthorn section)	RV R TF RVC	0 0 0 ✓	FB3**EW** Hawthorn section only Top Hawthorn section only	TF TF	0 0	FB3**EW** Hawthorn section only Top Hawthorn section only	TF TF	0 0

4	FB ditch**W**	TF	0	Cop R Trees	RVC RVC	✓ ✓	Cop Gap Guards Weed	RVC RV	✓ 0
5	No hedgerow exists at present.			No potential to plant a new hedgerow as area is now secondary woodland.					
6	Cop HT RSDW Gap Guards Weed	RVC R RVC RVC	✓ 0 0 ✓	Weed	RV	0	FB2**N** FB3**S** Top	TF TF TF	0 0 0
7	FB3**EW** Top	TF TF	0 0	FB3**EW** Top	TF TF	0 0	FB3**EW** Top	TF TF	0 0
8a	FB Ditch**W** Ditch FB2**E** Top RSDW	TF TF TF TF R	0 0 0 0 0	Gap Guards Weed FB2**E** Top FB3**W**	RVC TF TF TF	✓	FB3**W** FB2**E** Top Weed	TF TF TF RV	0 0 0 0
8b	FB2**W** Top RSDW	TF TF R	0 0 0	R Fence Gap Guards Weed FB2**W** Top	RV RVC TF TF	0 ✓ 0 0	FB2**W** Top Weed	TF TF RV	0 0 0
9a	Laid Jan 07 HT	RV R	✓ 0	FB3 **S** FB2**N** Top	TF TF TF	0 0 0	FB2**N** FB3**S** Top Lay in 2022	TF TF TF RVC	0 0 0 0
9b							Stock Plant Weed Only if funds allow i.e. successful hedgerow grant application	C RVC RVC	✓ ✓ ✓
10a	Top RSDW HT FB2**E**	TF R R TF	0 0 0 0	Lay	RVC	✓	Top FB2**E** FB3**W**	TF TF TF	0 0 0

10b	Top RSDW HT FB2**W** Lay Gap Guards Weed R Standards	TF R R TF RVC RVC RVC	0 0 0 0 ✓ ✓ ✓	Weed	RV	0			
11a	Ditch	TF	0				Cop Gap Guards Weed R standards	RVC RVC RVC	✓ ✓ ✓
11b	R standards Ditch	R TF	0 0				Plant	RVC	✓
12	Cop Salix FB3**W** Top Hawthorn R Guards	R TF TF RV	0 0 0 0	FB3**W** Top Hawthorn	TF TF	0 0	Cop Hawthorn	RVC	✓
13	R Guards FB3**N** Allow to develop into roadside woodland area.	RV TF	0 0	FB3**N**	TF	0	FB3**N**	TF	0
14	R Guards Lay Gap Weed Stock HT	RV RVC RVC RVC R	0 ✓ ✓ ✓ 0	Weed	RV	0	FB3**EW**	TF	0
15	R Guards HT Top FB3**EW**	RV R TF TF	0 0 0 0	FB3**EW** CL Stock Gap weed	TF RVC RVC RVC	0 ✓ ✓ ✓	FB3**EW** Top Weed	TF TF RVC	0 0 0

16	FB3**EW** Top Weed HT R Standards R Guards RSDW Sucker **S** Gap Guards Weed	TF TF RV R R RV R TF RVC	0 0 0 0 0 0 0 0 ✓	FB3**EW** Top Weed	TF TF RV	0 0 0	FB3**EW** Top	TF TF	0 0
17	HT FB3**NS**	R TF	0 0	Top FB3**NS**	TF TF	0 0	CL	RVC	✓
18	FB Ditch**E** Cop HT	TF RVC R	0 ✓ 0	Cop Gap Guards Weed	RVC RVC	✓ ✓	Weed	RV	0
19	FB2 Top	P P	0 0	FB2 Top	P P	0 0	FB2 Top	P P	0 0
20	FB3**EW**	TF	0				Cop Gap Guards Weed	RVC RVC	✓ ✓
21	Cop RSDW HT Gap Guards Weed FB3**E** Discuss management with Colchester Institute	P P P P C	0 0 0 0 ✓	FB3**E**	C	✓	FB3**E**	C	✓
22 + 23	R Fence RSDW R Cop	RVC R RVC	0 0 ✓	Gap (2 plants per meter rather that 4 i.e. woodland corridor planting rather that hedge planting)Guards Weed R Cop	RVC RVC	✓ ✓	R Cop Weed	RVC RV	✓ 0
24	FB3**S** Top	TF TF	0 0	FB3**S** Top	TF TF	0 0	FB3**S** Top	TF TF	0 0

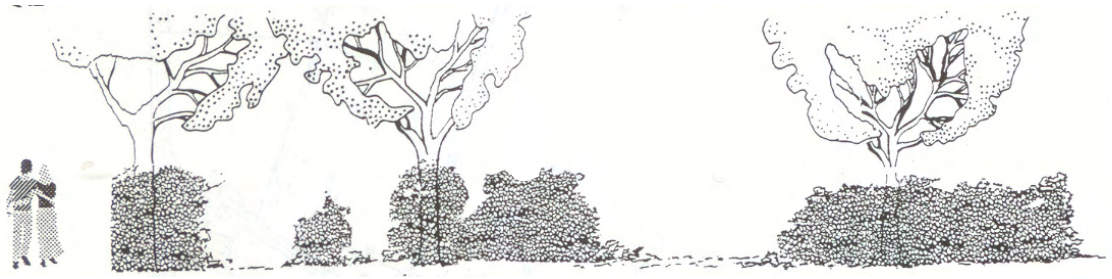
25 + 26	HT R Cop Rotationally Gap Weed Sucker	R RVC RVC	0 ✓ ✓	R Cop Rotationally Gap Weed Sucker Ditch (26)	RVC RVC C	✓ ✓ 0 ✓	R Cop Rotationally Gap Weed Sucker	RVC RVC	✓ ✓
27	FB3**N** R Cop	C RVC	✓ ✓	R Cop FB3**N**	RVC C	✓ ✓	R Cop FB3**N**	RVC C	✓ ✓
28	Gap Weed FB3**NS** Top	RVC RV RV	✓ 0 0	FB3**NS** Weed Top	RV RV RV	0 0 0	FB3**NS** Top	RV RV	0 0
29							Plant Guard Weed Only if funds allow i.e. successful hedgerow grant application	RVC	✓
30							Plant Guard Weed	P	✓

Appendix 1. Hedge Profiles

A. Hedge trimmed

B. Hedge uncut, gappy

C. Hedge uncut, gappy with many hedge tree standards



D. Derelict hedge

E. Line of relic hedge

Cross sections

Can be maintained to the shape of any of the cross section shown in **Diagram 1** below.

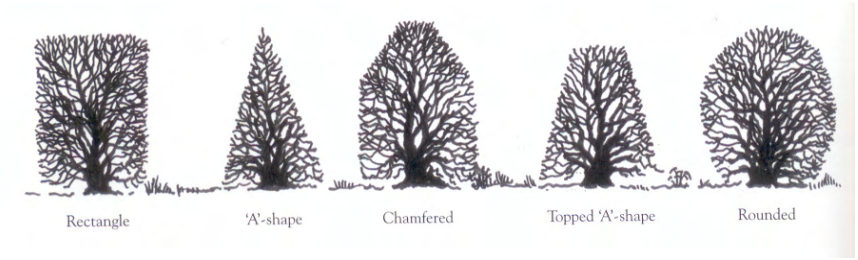
(Hedgerow Management and Nature Conservation, Watt and Buckley)

F. Coppiced hedge
(approx 5 yrs growth)

G. Midland Hedge laying

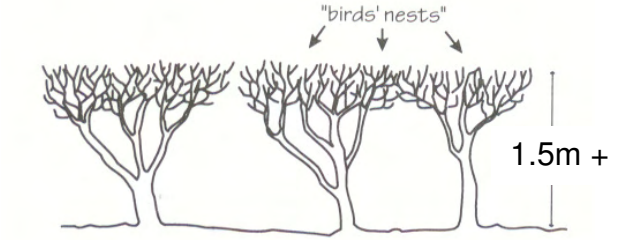
H. Hedge planting in a single row with no management resulting in a line of trees.

Diagram 1. Trimmed hedge cross-sections.



(The Hedge Tree Handbook)

Diagram 2. Where a hedge has been repeatedly trimmed for many years back to the same point the base has becomes gappy and the top has clusters of twiggy growth creating a birds nest effect.



(Hedging a Practical Handbook BTCV)

Appendix 2: Management Options

All management options should be carried out after leaf fall in autumn but before leaf buds begin to break in spring i.e. when the plants are dormant and at a time that causes minimal disturbance to wildlife, especially nesting birds. This varies from year to year but is usually between the beginning of November to end February, unless stated otherwise below.

Wildlife will benefit most from hedge types that vary in size, shape and composition.

Cop - Coppice every 15 – 20 years (or when the average stem diameter has reached a size greater than 10cm)

Lay - Lay every 10 – 15 years (or when the average stem diameter is between 7 – 10cm). In most cases staking and binding will not be necessary as the primary job of the hedge is no longer to keep stock enclosed but of wildlife and aesthetic value, creating shelter and wildlife corridors across the site. If time and resources allow for staking and binding then the then the Midland or South of England style should be used (BTCV Hedging Hand Book).

CL - Initially coppice then lay every 10 – 15 years (See **Lay** above).

FB3 - Face back each side every third year, each side carried out on alternate years. (Entry Level Scheme EB3). Avoid cutting back to the same point as this leads to excessive branching at that point creating a birds nest effect (See diagram 2, appendix 1). Best carried out in Jan – Feb so winter larder of nuts and fruit are left for wildlife.

Top - Reduce height to 2 meters every 3 yrs.

R Guards - Remove redundant tree guards.

Gap - Gap up. In gaps of less that 2m lay pleachers into the gap. Where this is not possible or in gaps larger that 2m plant the gaps with 45 – 60cm whips using a mix of at least three of the most common species growing within the existing hedgerow with no one species making up more than 75% of the total. Four plants per meter, staggered in two rows 40cm apart. Clear soil of all vegetation, dig over thoroughly, and mix in compost or manure. Use mulch matting and mulch if available.

Weed - Weed round whips annually for first four years between April – June and trim long shoots to produce bushy growth.

Guards - Use tree guards, removing after a maximum of four years.

Rabbit - Install/improve rabbit fencing 2m from face of hedge.

Stock - Install/improve stock fencing 2m from face of hedge.

FB2 - Face back every other year to allow access.

R Fence - Remove old post and wire fencing.

R Trees - Remove a row of adjacent plantation trees to improve light and moisture levels reaching the hedgerow.

Bottom - Cut and clear hedge bottoms to 10cm height every third year in September – October, width of 1 – 3 meters from outer face of the hedge depending on adjacent land use.

HT - Identify hedge trees with tags and allow them to develop. Allow at least 50m between trees choosing where possible stems that grow straight up from the hedge base (See ‘The hedge tree hand book’, The Tree Council). Monitor success of hedge trees over the first few years after

selection. During this time hand trimming around each tree may be necessary as machines will not be able to cut too close to them.

R Elder - Remove elder. It is a short-lived plant that will die back and leave gaps.

FB Ditch - Face back over ditches so ditch maintenance can be carried out.

Ditch – Ditch maintenance required. Increase depth and improve the flow of the ditch by clearing out silt and debris.

RSDW - Remove standing dead wood (mostly Elm) where it may cause safety issues near footpaths or access routes.

Sucker - Allow thorn sucker growth to develop along fence line of up to one meter from existing hedge face, thus creating a naturally wider, denser hedge.

R Standards - Reduce number of hedge tree standards i.e. selectively coppice mature trees or large, over mature coppice stools.

R Cop – Promote as woodland corridor: rotationally coppice, leaving standards, creating scrub habitat.

Plant - Plant new hedgerow. Clear soil of all vegetation, dig over thoroughly, and mix in compost or manure. Plant up with 45 – 60cm whips using a mix of at least 50% thorn species with no one species making up more than 75% of the total. Select a wildlife mix (see box 1). As a rough guide plant four plants per meter, staggered in two rows 40cm apart (distances may vary with species mix, check with supplier first). Use mulch matting and mulch.

Arisings - Where viable to do so i.e. when a large enough quantity in an reasonably accessible location is produced all arisings of less than 10cm will be chipped and transported to the Community Garden at High Woods Country Park or used as a mulch for future hedge planting on site. When it is not reasonable to chip, the brash will be burnt on site either in the yard area or in a suitable location near the work site. Larger material (at least 5%), where possible, will be used to create habitat piles. Excess larger material will have to be burnt or if time allows logged, transported and sold as fire wood from HWCP Visitor Centre.

Box 1. Hedging species

Stock proof	**Boundary**	**Wildlife**
Hawthorn *(Crataegus spp)* Blackthorn / Sloe *(Prunus spinosa)* Holly *(Ilex aquifolium)* Myrobalan / Cherry plum *(Prunus cerasifera)* Bullace or wild plums (gauges and damsons) *(Prunus domestica spp)* Crab apple *(Malus sylvestris)*	*All species listed left plus:* Hornbeam *(Carpinus betulus)* Field maple *(Acer campestre)* Hazel *(Corylus avellana)* Oak *(quercus spp)* Ash *(Fraxinus excelsior)* Beech *(Fagus sylvatica)* Alder *(Alnus glutinosa)* Elm *(Ulmus spp)* Poplar *(Populus spp)*	*All species listed left plus:* Willow *(Salix spp)* Sweet chestnut *(Castanea sativa)* Spindle *(Euonymus europaeus)* Common privet *(Ligustrum spp)* Purging buckthorn *(Rhamnus catharticus)* Alder buckthorn *(Frangula alnus)* Dog rose *(Rosa canina)* Sweet briar *(Rosa rubiginosa)* Bramble *(Rubus fruticosus)* Gorse *(Ulex europaeus)* Wayfaring tree *(Viburnum lantana)* Guelder rose *(Viburnum opulus)* Dogwood *(Cornus sanguinea)* Elder *(Sambucus nigra)* Cherry *(Prunus spp)* Rowan *(Sorbus aucuparia)*

Traditional East Anglian Hedge Mix
50% Hawthorn
25% Blackthorn
10% Elm or Field Maple
5% English Oak
5% Hazel
5% Dog Rose

Appendix 3 - Hedgerow Management Estimated Costs 2007 – 2016

	0 - 3	Cost	3 - 6	Cost	6 - 9	Cost
1	0	0	Install secure fencing	£5K?	Cop198m	£960
2	Top FB 90m Gap 16m	£100 £100 £112	FB 90m Top	£100 £100	FB 90m Top	£100 £100
3	Lay 190m	£840				
4			Cop 70m R trees	£360 £120	Cop 50m	£240
6	Cop 147m Gap 4m	£720 £28				
8a			Gap 25m	£175		
8b			Gap 39m	£273		
9b					Stock 124m Plant 124m	£750 £868
10a			Lay 127m	£600		
10b	Lay 104m Gap 23m	£480 £161				
11a					Cop 74m Gap 42m	£360 £294
11b					Plant 67m	£476
12					Cop 17m	£60
14	Lay 58m Gap 12m Stock 8m	£240 £84 £48				
15			Stock 16m Cop 81m	£96 £360		
16	Gap 40m	£280				
17					Cop 126m	£1080
18	Cop 100m	£480	Cop 100m Gap 55m	£480 £385		
20					Gap 24m Cop 145m	£168 £720
21	FB 219m	£200	FB 219m	£200	FB 219m	£200
22/23	R Cop	£360	Gap 165m R Cop	£1155 £360	R Cop	£360
25	R Cop R Gap 30m	£360 £210	R Cop R Gap 30m	£360 £210	R Cop R Gap 30m	£360 £210
26	R Cop R Gap 30m	£360 £210	R Cop R Gap 30m Ditch	£360 £210 £1000	R Cop R Gap 30m	£360 £210
27	R Cop FB	£360 £100	R Cop FB	£360 £100	R Cop FB	£360 £100
28	Gap 10m	£70				
29					Plant 317m	£2219
Total		£6103		£6364		£6718

Total for 9 yrs £19,185 - Making it roughly £2130 per year required to maintain hedgerows

(Items in red are not included in total – require additional funding to go ahead e.g. a successful grant application)

~Gaping up is worked out on an average cost per meter which includes Severals Landscapes rotivating the soil, mulch matting, 4 x 40 – 60cm whips, canes, spiral guards and BTCV labour i.e. £7 per meter.
~BTCV labour is based on the current £120 per day with them coppicing/laying 25m per day and planting 50m per day.
~The figures for hedge laying in the table above are for BTCV carrying out the work, if the specialist company Earth Works were to do it would double the price (£8 a meter, not including binding, £12 with).
~Stock fencing £6 per meter (All costs estimated using Dec 2007 prices)

Glossary

Age – an estimate of from when the hedgerow was planted or in cases where there is evidence of coppicing, yrs since last coppiced.

Width – average width in meters form one face to the other.

Height – minimum to maximum values excluding hedge tree standards.

PROW – Public Right of Way.

N, S, E, W – Denoted which face of the hedge is being specified.

Grazing Meadow – indicates that there is stock fencing erected on the hedge boundary adjoining the grazing meadow.

Gap – section of hedge line where there is no shrub or thorn growth only weedy growth of grasses, nettles or bramble.

Face Back and **Topping** – using mechanical flail, the hedge should be cut a little further out at each trim, with the result of the hedge getting gradually taller and wider. After about four trims the hedge should be cut back to it original dimensions.

Woodland Corridor – allow a hedge line to expand to become several meters wide, retaining mature trees and dead wood, creating a strip of woodland habitat. These, and hedges can work as effective **wildlife corridors** i.e. they allow wildlife movement from one area to another under the protection of a scrub / woodland canopy, also supplying them with food and shelter.

Standard – A mature tree within the hedgerow with a trunk diameter greater than 20cm, with the majority of its crow above the average hedge height. Also known as **Hedge Trees**.

Arisings – Brash, larger branches and logs created from cutting the hedges.

Pleacher – Hedge plant stem.

Bibliography

Hedgerow Management and Nature Conservation - Watt and Buckley 1994

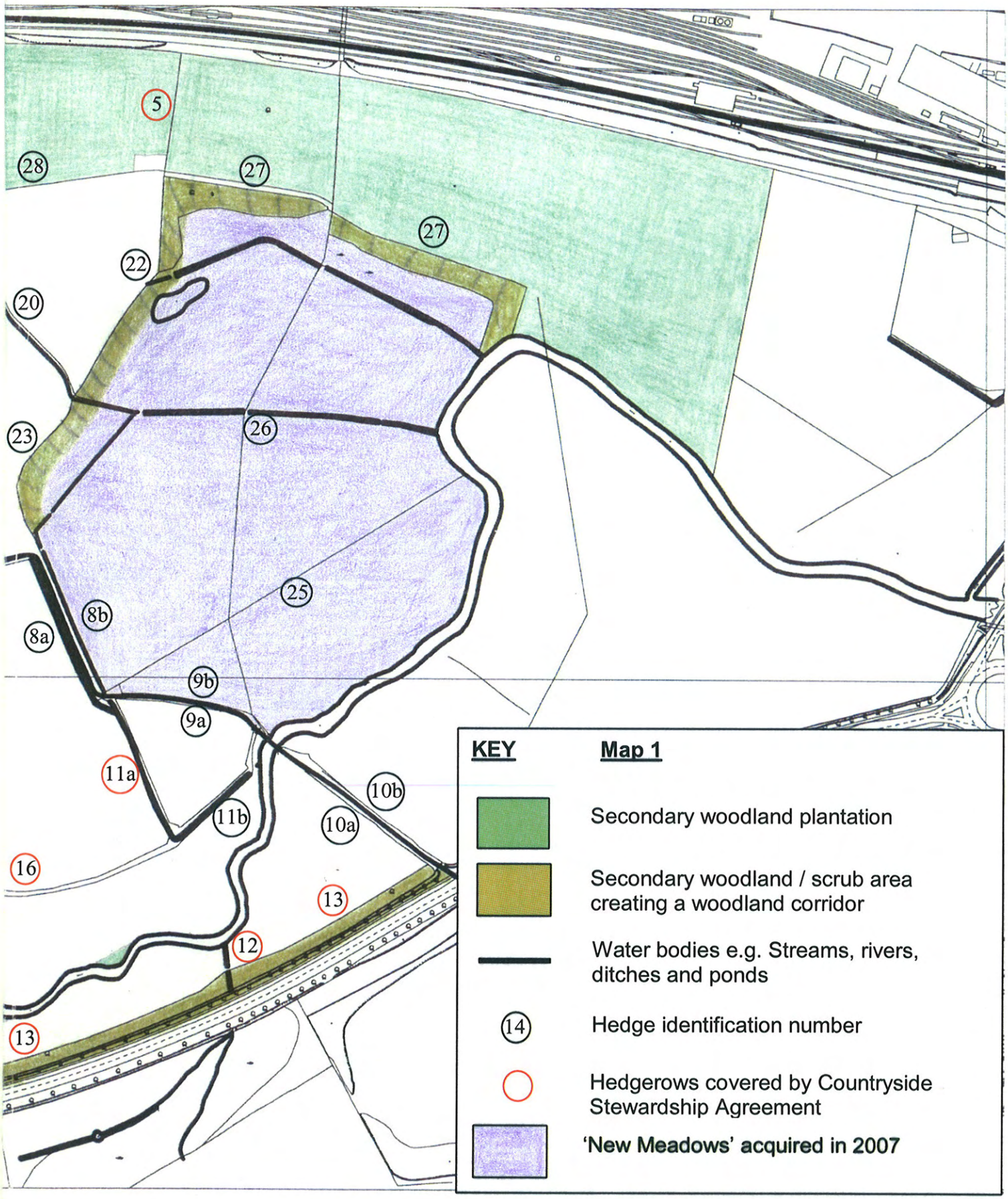
Hedging a Practical Hand Book – BTCV 1998

The Hedge Tree Hand Book – The Tree Council 2004

Hedgerow Survey Handbook – Defra

Alba Tree Plc – www.albatrees.co.uk

Glebe Farm Hedging – www.hedge-plants.co.uk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KEY
Map 1
Secondary woodland plantation
Secondary woodland / scrub area creating a woodland corridor
Water bodies e.g. Streams, rivers, ditches and ponds
14
Hedge identification number
Hedgerows covered by Countryside Stewardship Agreement
'New Meadows' acquired in 2007


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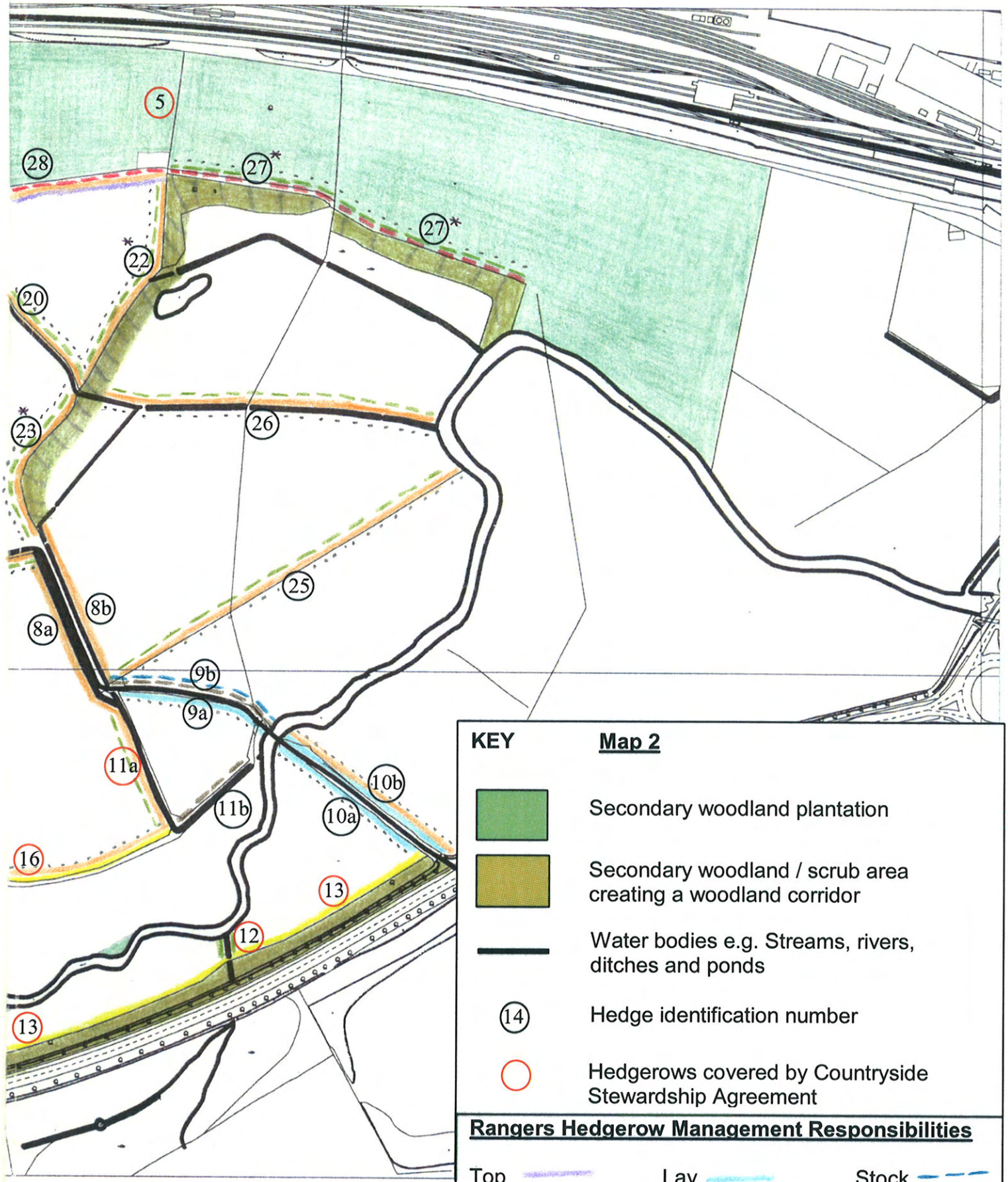
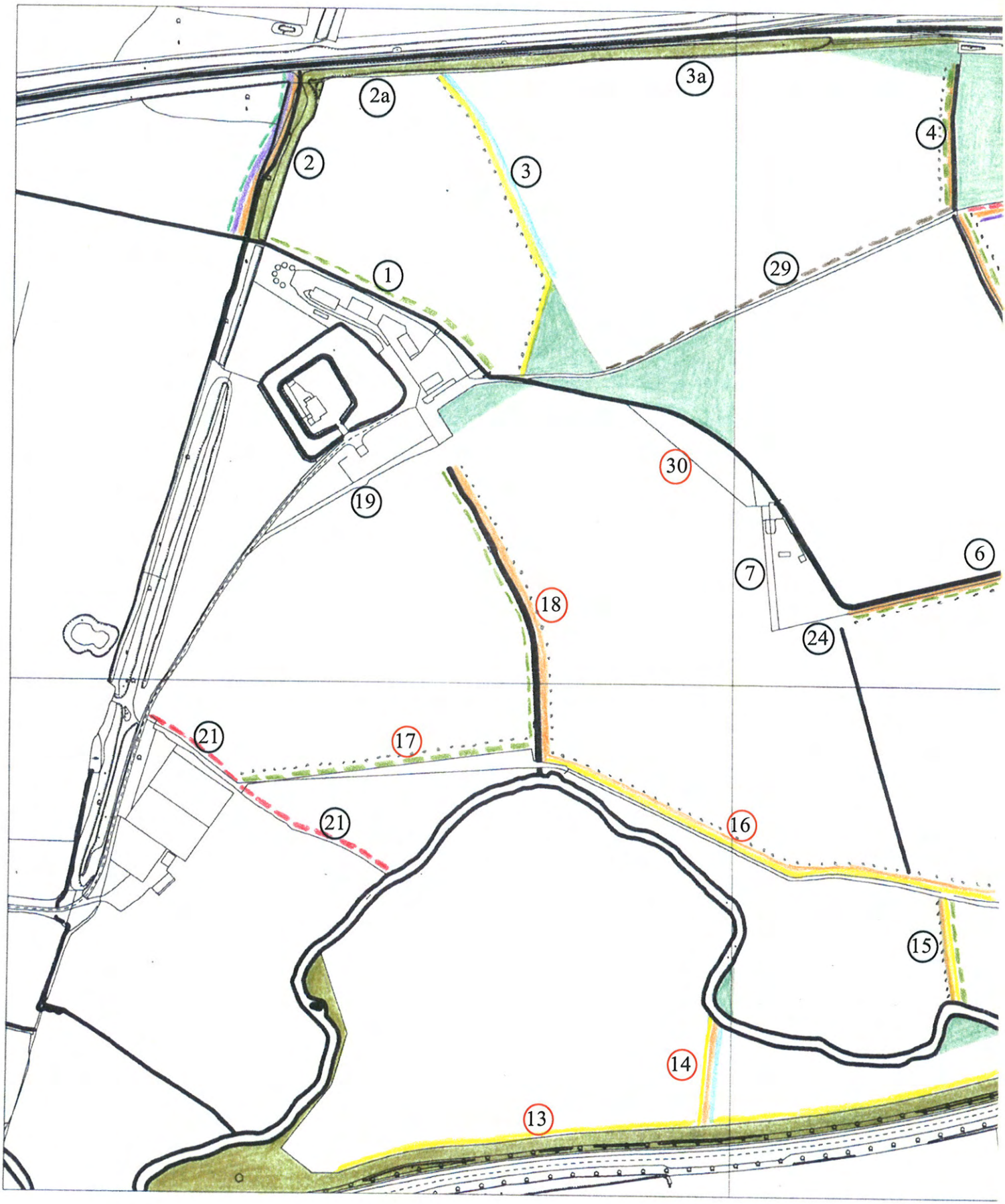


KEY **Map 2**

- Secondary woodland plantation
- Secondary woodland / scrub area creating a woodland corridor
- Water bodies e.g. Streams, rivers, ditches and ponds
- (14) Hedge identification number
- Hedgerows covered by Countryside Stewardship Agreement

Rangers Hedgerow Management Responsibilities

Top	Lay	Stock
FB2	FB3	HT
Gap	Cop	* Applies to the woodland corridor
Plant	R Guards	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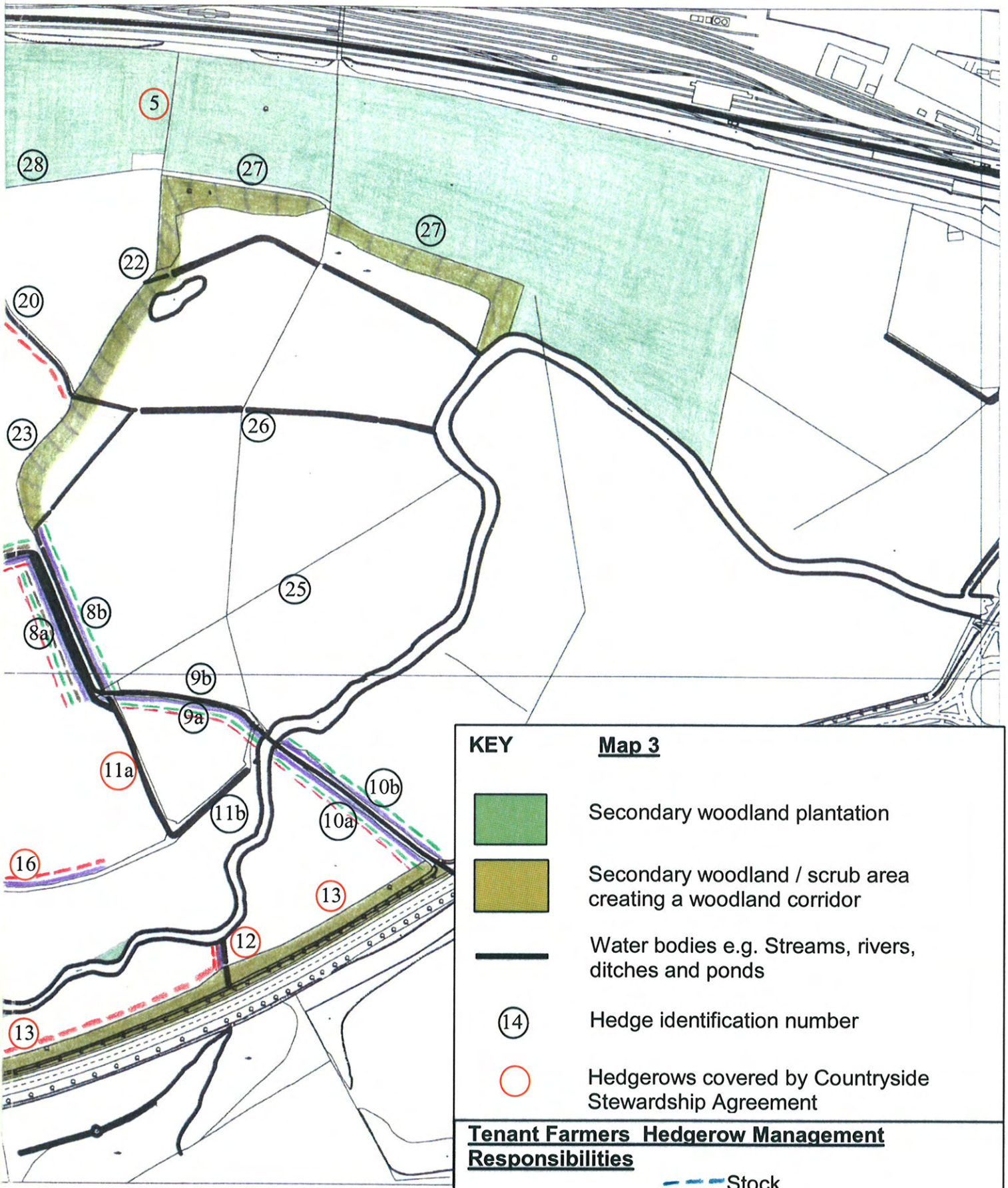
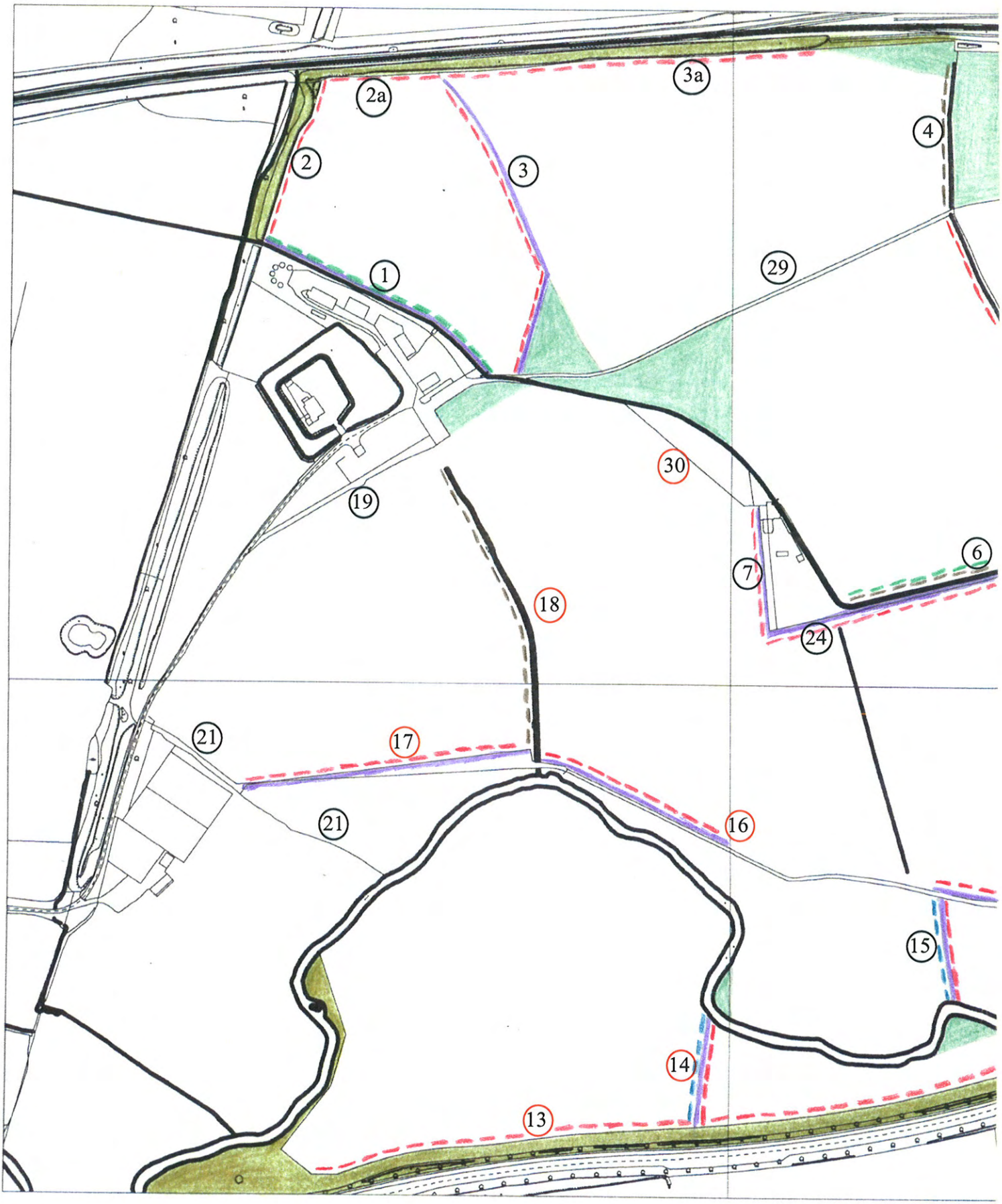


KEY **Map 3**

- Secondary woodland plantation
- Secondary woodland / scrub area creating a woodland corridor
- Water bodies e.g. Streams, rivers, ditches and ponds
- (14) Hedge identification number
- Hedgerows covered by Countryside Stewardship Agreement

Tenant Farmers Hedgerow Management Responsibilities

- Stock
- Top
- FBDitch and Ditch
- FB2
- FB3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