

# **TMBC Roadside Nature Reserves botanical survey report 2025**

## **Introduction**

In 2025 Medway Valley Countryside Partnership (MVCP) was commissioned to carry out monthly botanical surveys of all Tonbridge and Malling Borough Council (TMBC) Roadside Nature Reserves (RNRs) from April to September. TMBC first designated 10 RNR sites in 2022 as part of its commitment to tackling climate change by enhancing biodiversity. These reserves allow grass to grow longer, creating habitats that support wildlife. Today, there are 22 RNRs spread across 12 locations.

Roadside Nature Reserves act as vital wildlife corridors, connecting fragmented habitats and helping species move across the landscape. These small areas play an important role in sustaining local wildlife populations.

Surveys were conducted using quadrats to record plant species and their abundance. Each site included at least 10 quadrats, with larger sites containing up to 30 where multiple RNRs were present. Quadrats were arranged in sets of ten along a W-shaped transect. In addition to plants, any invertebrates observed were identified and recorded using field guides and verified with digital tools to ensure accuracy. While the focus was on wildflowers, some invertebrates may have been missed, and weather conditions—such as heat or rain—can reduce activity, particularly for species like bumblebees.

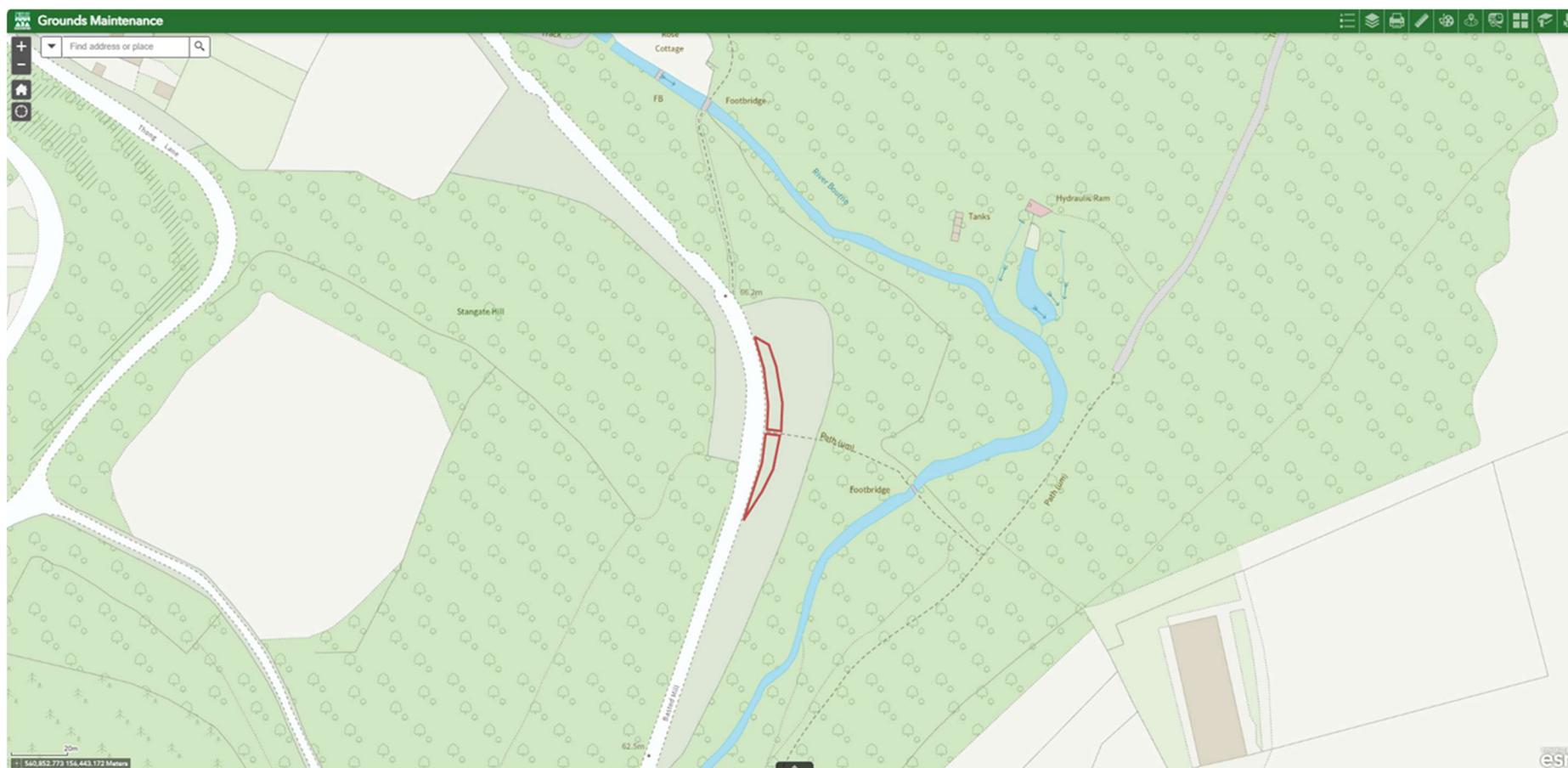
The April surveys were led by Mark Gallant, Senior Partnership Officer at Northwest Kent Countryside Partnership, with subsequent surveys from May to September conducted by Alexander Hodges, Countryside Officer at MVCP.

**Table showing the address, post code, grid reference and what 3 words designations for each of TMBC Roadside Nature Reserves**

Name	Address	Post code	Grid reference(s)	what 3 words designations	Notes
Basted Mill RNR	Borough Green	TN15 8LP	TQ607563	///incomes.dash.safety	Basted Mill open space, near Borough Green
Brook Street RNR	Tonbridge	TN9 2PN TN9 2QN	TQ 581456 TQ 580455 TQ 577455	///shades.link.zebra ///claims.dating.heat	Land off Brook Street and Upper Haysden Lane, Tonbridge, near to the junctions with Shakespeare Road and Masefield Way
Carnation Crescent RNR	East Malling	ME19 6EP	TQ698580	///hurray.manage.carpentry	Part of Carnation Green, East Malling
Darenth Avenue RNR	Tonbridge	TN10 3HZ	TQ590481	///power.hidden.slang	The first RNR introduced by TMBC.
Gibson Building RNR	Kings Hill	ME19 4LB	TQ669554	///roughest.thus.latches	Located outside the TMBC Council Offices in Kings Hill
Hazel Shaw RNR	Tonbridge	TN10 3QD	TQ596490	///lock.pump.easy	The area between Shipbourne Road and Hazel Shaw, Tonbridge
Lillieburn RNR	Leybourne	ME19 5HF	TQ688586	///eggs.fuel.homeward	Land off Lillieburn, Leybourne
Lime Crescent RNR	East Malling	ME19 6DN	TQ700757	///ants.emotional.peroxide	An extension to the existing unmown area at the New Road/Lime Crescent junction, East Malling

River Lawn RNR	Tonbridge	TN9 1EP	TQ588462 TQ588462 TQ588462	///diner.global.pink	River Lawn in Tonbridge town centre
Shipbourne Road RNR	Tonbridge	TN10 3EH	TQ593481 TQ593482	///crate.repay.image	Land east of Shipbourne Road, Tonbridge, between the junctions of The Ridgeway and Cage Green Road
Tudeley Lane RNR	Tonbridge	TN9 2EX	TQ595453	///sank.statue.pumps	Part of the verge north of Tudeley Lane, Tonbridge, by Weald of Kent Grammar School
Waveney Road RNR	Tonbridge	TN10 3JY	TQ589484	///fingernails.sample.sober	Land west of Waveney Road, Tonbridge

## Survey Results - Basted Mill RNR:



The RNR at Basted Mill was one of the better sites regarding the wildlife present. This was due to being next to the Nature reserve, its greater isolation, and the longer vegetation; this is especially relevant to the Harvest mice' nests recorded on site, which need long tussocky grasses. On one of the survey days, the knapweed was in flower, and we recorded five bee and four butterfly species. In total, we recorded 29 plant species and twelve non-plant species within the Roadside Nature Reserve at Basted Mill. Basted Mill had ten quadrats for the wildflower

survey. In terms of the habitat conditions, the grass was long throughout the year; however, the tall grasses were dominating the other plant species to the extent that you could see a higher herb cover in those areas that had been cut at Basted Mill.

### Management recommendations

We recommend implementing an annual cut-and-collect in September to help reduce soil fertility and control grass cover. When surveying, a Harvest mouse nest was found and could be disturbed; this would need to be considered before cutting. If feasible with the cut vegetation, from the site we could recommend creating a habitat pile near the edge of the site as it will provide nesting habitat for many species. The flowering species diversity at Basted Mill is generally good at the site and does not need to be sown with extra flora species despite having the lowest species diversity of the RNRs; however, the site could benefit from yellow rattle seeding, to control grass cover. In addition, if there is a local meadow site with higher biodiversity, green haying could be an option to increase flora diversity. Also, to help improve the site's Biodiversity, we would recommend increasing the area for the RNR to include more of the amenity grass area. To balance use cases, you can cut pathways through the grass, so that people still have access to the amenity grassland. In addition to this, there could be a one-meter buffer around the site's edge for longer grasses and vegetation. Creating these areas of long tussocky grass will benefit wildlife like Carder bees and Harvest mice, as they use these grasses to weave their nests. These management changes will result in a mosaic of habitats that enhance the site for wildlife while preserving public accessibility. If the expansion of the RNR is not feasible then, increasing the cutting height of the surrounding grassland as it will allow the lower lying wildflowers to flower in addition it would make it more resistant to drought. In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

### Survey recommendations

- Bumblebee Surveys (Beewalk, Once a month between March and September)
- Wildflower Surveys (3 times a year, early (April-May), middle (June-July) and late (August-September))
- Butterfly transects (UKBMS, Weekly 1st April and 29th September)

These three surveys will help monitor the health of site over the year and identify new species for the sites. These surveys can be conducted by Medway Valley Countryside Partnership.

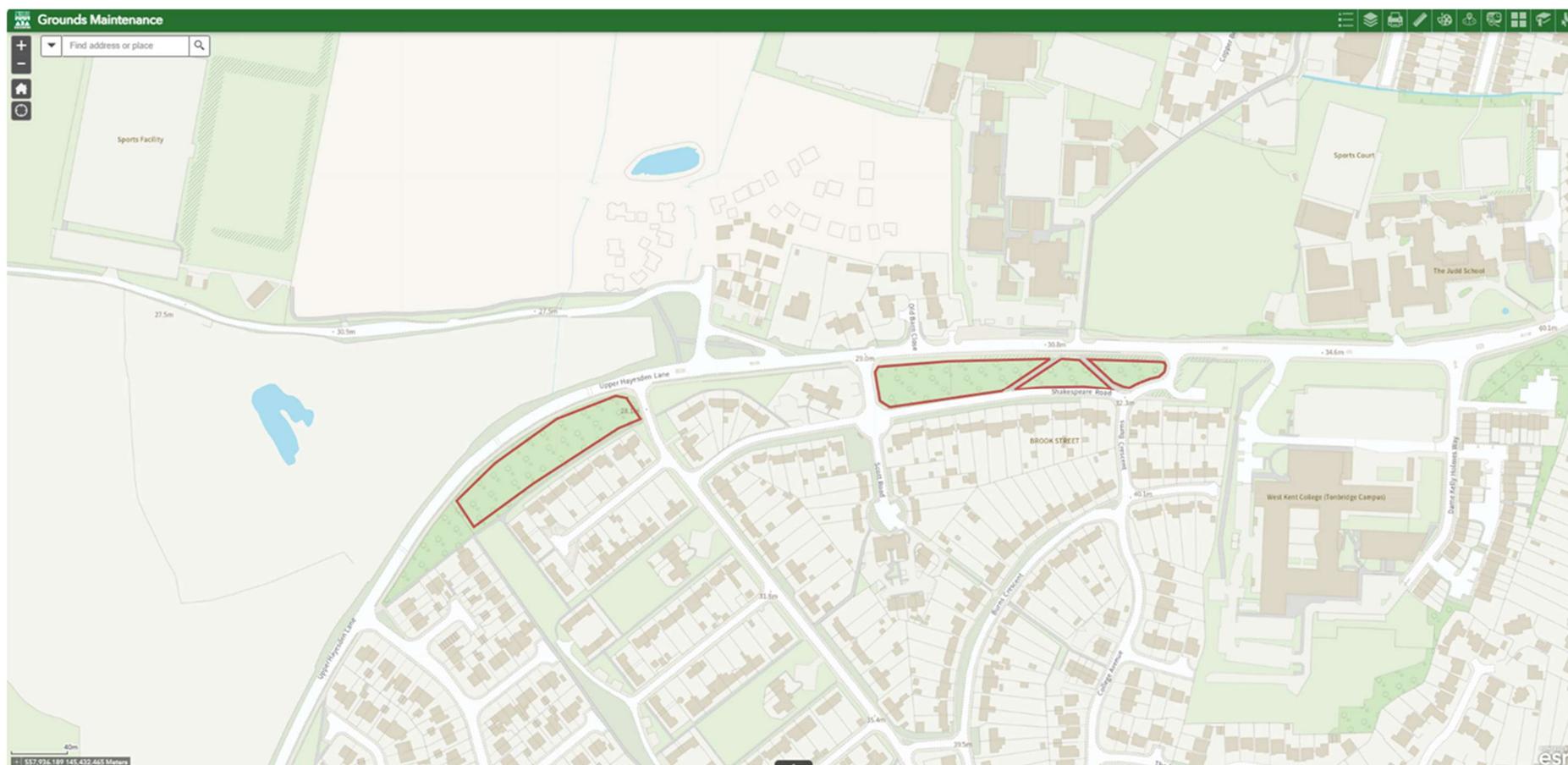
Plant List	Number of times plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Bird's-foot trefoil	1	1	<i>Lotus corniculatus</i>	0.25%
Common vetch	2	2	<i>Vicia sativa</i>	0.17%

Cow parsley	3	3	<i>Anthriscus sylvestris</i>	0.33%
Creeping buttercup	26	4	<i>Ranunculus repens</i>	4.58%
Cuckoo flower	1	5	<i>Cardamine pratensis</i>	0.00%
Curled dock	4	6	<i>Rumex crispus</i>	2.42%
Daisy	1	7	<i>Bellis perennis</i>	0.08%
Dandelion sp.	36	8	<i>Taraxacum officinale</i>	10.83%
English cinquefoil	8	9	<i>Potentilla anglica</i>	2.50%
Field speedwell	4	10	<i>Veronica persica</i>	0.67%
Germander speedwell	2	11	<i>Veronica chamaedrys</i>	0.17%
Grass sp.	49	12	<i>Poaceae spp.</i>	66.25%
Ground ivy	3	13	<i>Glechoma hederacea</i>	0.08%
Hogweed	13	14	<i>Heracleum sphondylium</i>	4.50%
Knapweed	8	15	<i>Centaurea nigra</i>	4.17%
Lesser celandine	1	16	<i>Ficaria verna</i>	0.00%
Lords-and-ladies	1	17	<i>Arum maculatum</i>	0.00%
Meadow buttercup	3	18	<i>Ranunculus acris</i>	1.17%
Oxeye daisy	1	19	<i>Leucanthemum vulgare</i>	0.00%
Ragwort	1	20	<i>Jacobaea vulgaris</i>	0.00%
Rough hawks-beard	2	21	<i>Crepis biennis</i>	0.67%
Ryegrass	1	22	<i>Lolium perenne</i>	0.00%
Sessile oak	1	23	<i>Quercus petraea</i>	0.00%
Spiked sedge	1	24	<i>Carex spicata</i>	0.00%
Stinging nettle	1	25	<i>Urtica dioica</i>	0.00%
Tall fescue	1	26	<i>Festuca arundinacea</i>	0.00%
Timothy	1	27	<i>Phleum pratense</i>	0.00%

White clover	6	28	<i>Trifolium repens</i>	0.92%
Wild carrot	1	29	<i>Daucus carota</i>	0.00%
Yarrow	1	30	<i>Achillea millefolium</i>	0.25%
<b>Grand Total</b>	<b>184</b>	<b>29</b>		

Other non-plant species	Latin names
American Pekin	<i>Anas platyrhynchos domesticus</i>
Buff tail Bumblebee	<i>Bombus terrestris</i>
Common Blue Butterfly	<i>Polyommatus icarus</i>
Common red soldier beetle	<i>Rhagonycha fulva</i>
Gatekeeper Butterfly	<i>Pyronia Tithonus</i>
Harvest mouse nest	<i>Micromys minutus</i>
Large White Butterfly	<i>Pieris brassicae</i>
Meadow brown butterfly	<i>Maniola jurtina</i>
Pantaloony bee	<i>Dasypoda hirtipes</i>
Red Tail Bumblebee	<i>Bombus lapidaries</i>
Southern cuckoo bumblebee	<i>Bombus vestalis</i>
Tree bumblebee	<i>Bombus hypnorum</i>

## Survey Results - Brook Street RNR



The RNR at Brook Street has the highest number of species, with 71 plant and 8 non-plant species recorded. The site is split into two separate sections, one next to Shakespeare Road and the other next to Masefield Way. Brook Street RNR has good access to other green spaces like the farmland over the road and Haysden Country Park, accessible through wildlife corridors. This may be why we have a high number of invertebrates recorded. Brook Street RNR has twenty quadrats over two sites for the wildflower survey. In terms of the habitat conditions, both sites were among the better sites in terms of the diversity of plant species.

## Management recommendations

In terms of management, we suggest an annual cut-and-collect in September. However, in both areas at Brook Street, there were samplings/suckers growing from the hedgerow, which could hinder or damage the cut and collect machine however this is unlikely. This is something to be mindful of when cutting and collecting. Regarding, species diversity, if feasible the site could benefit green haying from a local meadow site to further increase flora diversity. Another improvement could be to expand the area of the RNR, as these are thin areas and could only support a limited number of invertebrates and small mammals. This could be done by widening the areas by a meter or two. In addition to this, when cutting the areas adjacent to the RNR, reduce the number of times that it is cut and increase the cutting height to allow for the flowers to come up. In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

## Survey recommendations

- Bumblebee Surveys (Beewalk, Once a month between March and September)
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Plant List	Number of times plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Ash	1	1	<i>Fraxinus excelsior</i>	0.00%
Autumn hawkbit	3	2	<i>Scorzoneroides autumnalis</i>	0.33%
Bare ground	2	3		0.33%
Birds-foot trefoil	9	4	<i>Lotus corniculatus</i>	2.21%
Black locust	1	5	<i>Robinia pseudoacacia</i>	0.00%
Blackthorn	4	6	<i>Prunus spinosa</i>	0.38%
Broad-leaved dock	3	7	<i>Rumex obtusifolius</i>	0.21%

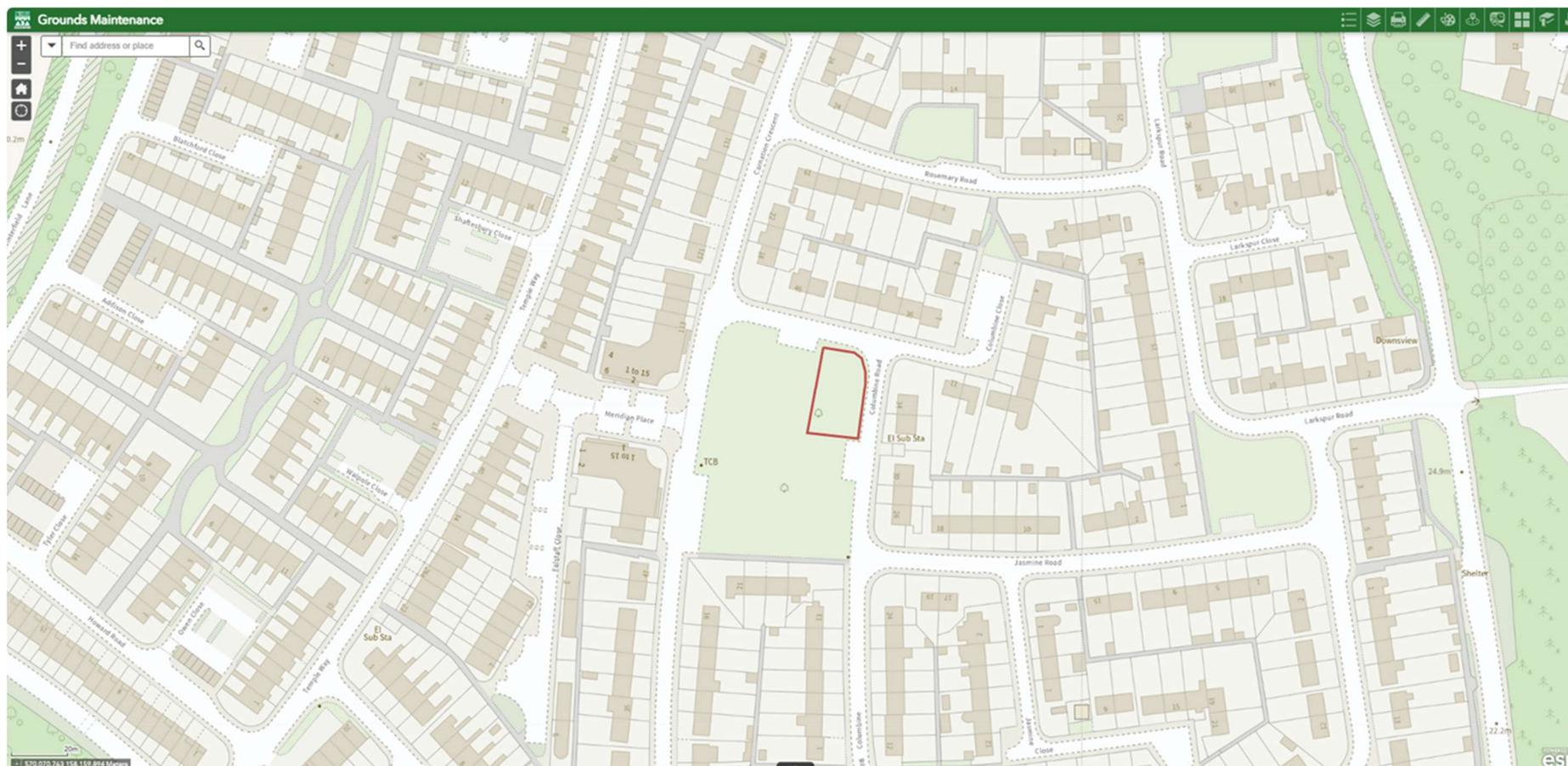
Bushgrass	1	8	<i>Calamagrostis epigejos</i>	0.00%
Cleavers	2	9	<i>Galium aparine</i>	0.00%
Common bent	1	10	<i>Agrostis capillaris</i>	0.00%
Common cat's ear	3	11	<i>Hypochaeris radicata</i>	0.21%
Common knapweed	1	12	<i>Centaurea nigra</i>	0.17%
Common sorrel	9	13	<i>Rumex acetosa</i>	1.04%
Cow parsley	2	14	<i>Anthriscus sylvestris</i>	0.00%
Crab apple	1	15	<i>Malus sylvestris</i>	0.00%
Creeping buttercup	23	16	<i>Ranunculus repens</i>	2.79%
Creeping cinquefoil	1	17	<i>Potentilla reptans</i>	0.00%
Crested dogs tail	1	18	<i>Cynosurus cristatus</i>	0.00%
Cuckoo flower	3	19	<i>Cardamine pratensis</i>	0.08%
Curled dock	2	20	<i>Rumex crispus</i>	0.00%
Daisy	13	21	<i>Bellis perennis</i>	0.71%
Dandelion sp.	38	22	<i>Taraxacum officinale</i>	2.46%
Dove's-foot crane's-bill	2	23	<i>Geranium molle</i>	0.08%
English cinquefoil	1	24	<i>Potentilla anglica</i>	0.50%
Field bindweed	1	25	<i>Convolvulus arvensis</i>	0.04%
Field speedwell	1	26	<i>Veronica persica</i>	0.00%
Germander speedwell	2	27	<i>Veronica chamaedrys</i>	0.00%
Grass sp.	119	28	<i>Poaceae</i>	59.17%
Greater birds-foot trefoil	3	29	<i>Lotus pedunculatus</i>	0.38%
Greater plantain	4	30	<i>Plantago major</i>	0.17%
Hairy bittercress	1	31	<i>Cardamine hirsuta</i>	0.00%
Hawthorn	1	32	<i>Crataegus monogyna</i>	0.00%
Hazel	1	33	<i>Corylus avellana</i>	0.00%
Hoary cress	1	34	<i>Lepidium draba</i>	0.13%

Horse chestnut	1	35	<i>Aesculus hippocastanum</i>	0.00%
Knapweed	15	36	<i>Centaurea spp.</i>	4.92%
Knotgrass	1	37	<i>Polygonum aviculare</i>	0.04%
Lesser celandine	2	38	<i>Ficaria verna</i>	0.00%
Lesser hawkbit	20	39	<i>Leontodon saxatilis</i>	1.96%
Lesser stitchwort	8	40	<i>Stellaria graminea</i>	0.33%
Lords-and-ladies	1	41	<i>Arum maculatum</i>	0.00%
Meadow buttercup	14	42	<i>Ranunculus acris</i>	0.00%
Meadow cranesbill	1	43	<i>Geranium pratense</i>	0.63%
Moss sp.	4	44	<i>Bryophyta</i>	0.88%
Mountain ash	1	45	<i>Sorbus aucuparia</i>	0.00%
Mouse eared chickweed	6	46	<i>Cerastium fontanum</i>	0.25%
Narrow leaf ash	1	47	<i>Fraxinus angustifolia</i>	0.00%
Norway maple	1	48	<i>Acer platanoides</i>	0.00%
Orchard grass	1	49	<i>Dactylis glomerata</i>	0.00%
Ox eye daisy	1	50	<i>Leucanthemum vulgare</i>	0.13%
Ragwort	6	51	<i>Jacobaea vulgaris</i>	0.08%
Red clover	7	52	<i>Trifolium pratense</i>	1.00%
Red deadnettle	2	53	<i>Lamium purpureum</i>	0.00%
Red oak	2	54	<i>Quercus rubra</i>	0.04%
Ribwort plantain	21	55	<i>Plantago lanceolata</i>	1.46%
Rough hawksbit	2	56	<i>Leontodon hispidus</i>	0.21%
Round-leaved cranesbill	1	57	<i>Geranium rotundifolium</i>	0.00%
Ryegrass	1	58	<i>Lolium perenne</i>	0.00%
Selfheal	12	59	<i>Prunella vulgaris</i>	0.88%
Sessile oak	1	60	<i>Quercus petraea</i>	0.00%
Smooth cat's ear	5	61	<i>Hypochaeris glabra</i>	0.38%

Smooth hawk's beard	1	62	<i>Crepis capillaris</i>	0.00%
Smooth meadow grass	1	63	<i>Poa pratensis</i>	0.00%
Spear thistle	1	64	<i>Cirsium vulgare</i>	0.00%
Spring sedge	1	65	<i>Carex caryophylla</i>	0.00%
Staghorn plantain	2	66	<i>Plantago coronopus</i>	0.04%
Wall barley	1	67	<i>Hordeum murinum</i>	0.00%
White clover	66	68	<i>Trifolium repens</i>	8.58%
Wild carrot	1	69	<i>Daucus carota</i>	0.04%
Wild cherry	2	70	<i>Prunus avium</i>	0.17%
Wood avens	2	71	<i>Geum urbanum</i>	0.00%
Yarrow	38	72	<i>Achillea millefolium</i>	6.63%
Yorkshire fog	1	73	<i>Holcus lanatus</i>	0.00%
<b>Grand Total</b>	<b>516</b>	<b>71</b>		

Other non-plant species	Latin names
Mabel white (Marbled White)	<i>Melanargia galathea</i>
Gatekeeper	<i>Pyronia tithonus</i>
7 spot ladybird	<i>Coccinella septempunctata</i>
Large white butterfly	<i>Pieris brassicae</i>
Red-tailed bumblebee	<i>Bombus lapidarius</i>
Common Wasp	<i>Vespula vulgaris</i>
Honeybee	<i>Apis mellifera</i>
Buff-tailed bumblebee	<i>Bombus terrestris</i>

## Survey Results - Carnation Crescent RNR:



The RNR at Carnation Green was among the poorer sites in terms of floral diversity. This could be due to the soil's high fertility or to most of the site being overshadowed by the trees (sweet chestnut). Also, it is one of the more isolated sites, being in the middle of a housing estate with limited green space and connectivity around the site. Trying to improve the site's connectivity would be an effective way of increasing the amount of wildlife that can use the site. In total, we recorded 39 plant species and two non-plant species within Carnation Green RNR, and this site had 10 quadrats. In terms of the habitat conditions, Carnation Green was one of the sites that needs management the most due to the

lower plant species recorded. Grasses accounted for a higher percentage of the area, and flowering plants accounted for a lower percentage cover than at other sites.

### Management recommendations

To improve floral biodiversity on the site, we suggest a cut-and-collect once a year in September. In addition to the existing cut-and-collect, we suggest sowing wildflower seed on the site. In terms of seed mixes, we would suggest the EM3 mix from Emorsgate Seeds (<https://wildseed.co.uk/product/mixtures/complete-mixtures/general-purpose-meadow-mixtures/special-general-purpose-meadow-mixture/>) and additional yellow rattle. Other improvements could be to expand the area of the Carnation Green RNR area, to support a wider variety of invertebrates. In addition to this, when cutting the areas adjacent to the RNR, you could reduce the cutting of the grassland and increase the cutting height to allow for the flowers to come up. In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

### Survey recommendations

- Bumblebee Surveys (Beewalk, Once a month between March and September)
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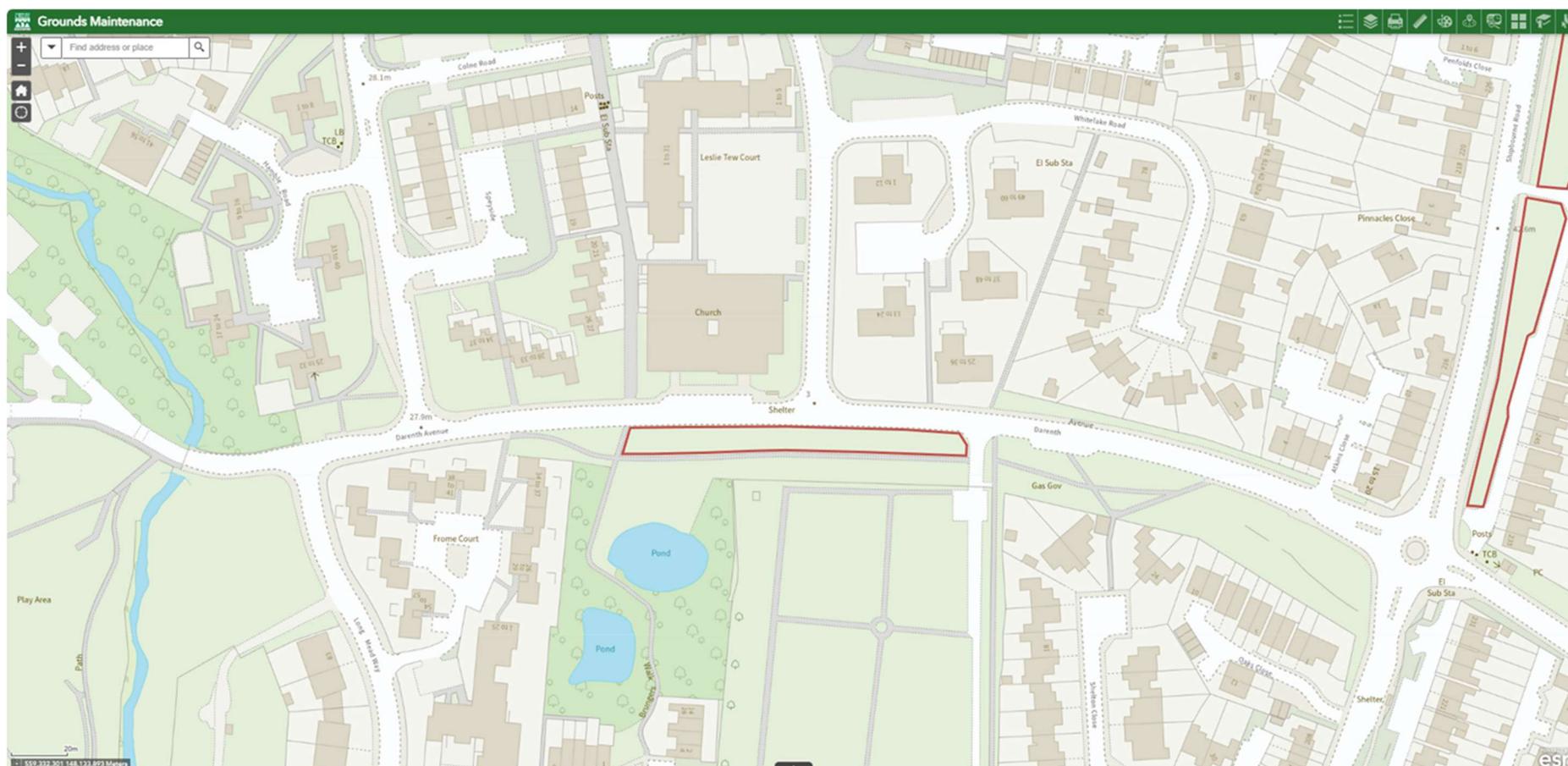
Plant list	Number of times plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Autumn hawkbit	5	1	<i>Scorzoneroides autumnalis</i>	2.00%
Cheatgrass	1	2	<i>Bromus tectorum</i>	0.00%
Cleavers	3	3	<i>Galium aparine</i>	0.35%
Cocksfoot grass	1	4	<i>Dactylis glomerata</i>	0.00%
Common bent	1	5	<i>Agrostis capillaris</i>	0.00%
Common mallow	1	6	<i>Malva sylvestris</i>	0.00%
Common sorrel	1	7	<i>Rumex acetosa</i>	0.25%

Cow parsley	1	8	<i>Anthriscus sylvestris</i>	0.00%
Creeping bent	1	9	<i>Agrostis stolonifera</i>	0.00%
Creeping buttercup	1	10	<i>Ranunculus repens</i>	0.08%
Curled dock	3	11	<i>Rumex crispus</i>	0.00%
Cut-leaved cranesbill	2	12	<i>Geranium dissectum</i>	0.08%
Daisy	1	13	<i>Bellis perennis</i>	0.00%
Dandelion sp.	23	14	<i>Taraxacum spp.</i>	4.17%
Dove's foot cranesbill	2	15	<i>Geranium molle</i>	0.08%
Foxtail barley	1	16	<i>Hordeum jubatum</i>	0.00%
Grass sp.	60	17	<i>Poaceae spp.</i>	78.73%
Greater plantain	1	18	<i>Plantago major</i>	0.00%
Hedge cranesbill	1	19	<i>Geranium pyrenaicum</i>	0.00%
Knotgrass	2	20	<i>Polygonum aviculare</i>	0.00%
Lesser celandine	6	21	<i>Ficaria verna</i>	1.33%
Meadow buttercup	2	22	<i>Ranunculus acris</i>	0.17%
Mouse-ear chickweed	1	23	<i>Cerastium fontanum</i>	0.00%
Oxeye daisy	1	24	<i>Leucanthemum vulgare</i>	0.00%
Perennial ryegrass	1	25	<i>Lolium perenne</i>	0.00%
Ragwort	1	26	<i>Jacobaea vulgaris</i>	0.00%
Red deadnettle	1	27	<i>Lamium purpureum</i>	0.00%
Ribwort plantain	12	28	<i>Plantago lanceolata</i>	3.17%
Rough hawk's-beard	2	29	<i>Crepis biennis</i>	0.50%
Rough meadow-grass	1	30	<i>Poa trivialis</i>	0.00%
Round-leaved bedstraw	1	31	<i>Galium rotundifolium</i>	0.17%
Smooth cat's ear	5	32	<i>Hypochaeris glabra</i>	0.25%
Spotted medick	1	33	<i>Medicago arabica</i>	0.00%
Stork's-bill	1	34	<i>Erodium cicutarium</i>	0.00%
Sweet chestnut	1	35	<i>Castanea sativa</i>	0.00%

Tall ryegrass	1	36	<i>Lolium arundinaceum</i>	0.00%
Timothy	1	37	<i>Phleum pratense</i>	0.00%
White clover	8	38	<i>Trifolium repens</i>	1.00%
Wild carrot	1	39	<i>Daucus carota</i>	0.33%
Yarrow	13	40	<i>Achillea millefolium</i>	7.33%
<b>Grand total</b>	<b>173</b>	<b>39</b>		<b>100.00%</b>

Other Non-Plant Species	Latin names
Buff-tailed bumblebee	<i>Bombus terrestris</i>
Honeybee	<i>Apis mellifera</i>

## Survey Results - Darenth Avenue RNR



The RNR at Darenth Avenue is well located, next to many green spaces, which makes it more valuable for its floral diversity, as wildlife from the surrounding green spaces can use them, such as the Brunges ponds and the Tonbridge Cemetery. This could explain the relatively high invertebrate diversity of the site compared to the plant diversity. Therefore, improving this site will benefit local wildlife. It also had a good variety of invertebrate records. In total, we recorded 35 plant species and eight non-plant species within Darenth Avenue RNR, and this site had 10

quadrats. In terms of habitat conditions, Darenth Avenue had one of the lowest numbers of plant species recorded; however, most of the plant species present were more abundant and occurred more often in the quadrats than in some of the other sites with similar plant numbers.

### Management recommendations

We suggest a cut-and-collect in September. This allows for tall the flowering plants to flower and set seed. In addition to this, when cutting the areas adjacent to the RNR, you could reduce the cutting of the grassland and increase the cutting height to allow for the wildflowers to flower. In addition to the cut-and-collect, another improvement could be to expand the Darenth Avenue RNR to include more of the grassy verges along Darenth Avenue and Waveney Road, connecting Darenth Avenue RNR, Waveney Road RNR and Shipbourne Road RNR. With the expansion of the RNR, a buffer might be needed to separate the pathways from the RNR, we suggest having a regular cut of a 1m buffer around the RNR flowing in the pathways. This will help define the RNR. This expansion would increase habitat connectivity. In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

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- Butterfly transects (UKBMS, Weekly 1st April and 29th September)

These three surveys will help monitor the health of site over the year and identify new species for the sites. These surveys can be carried out by Medway Valley Countryside Partnership

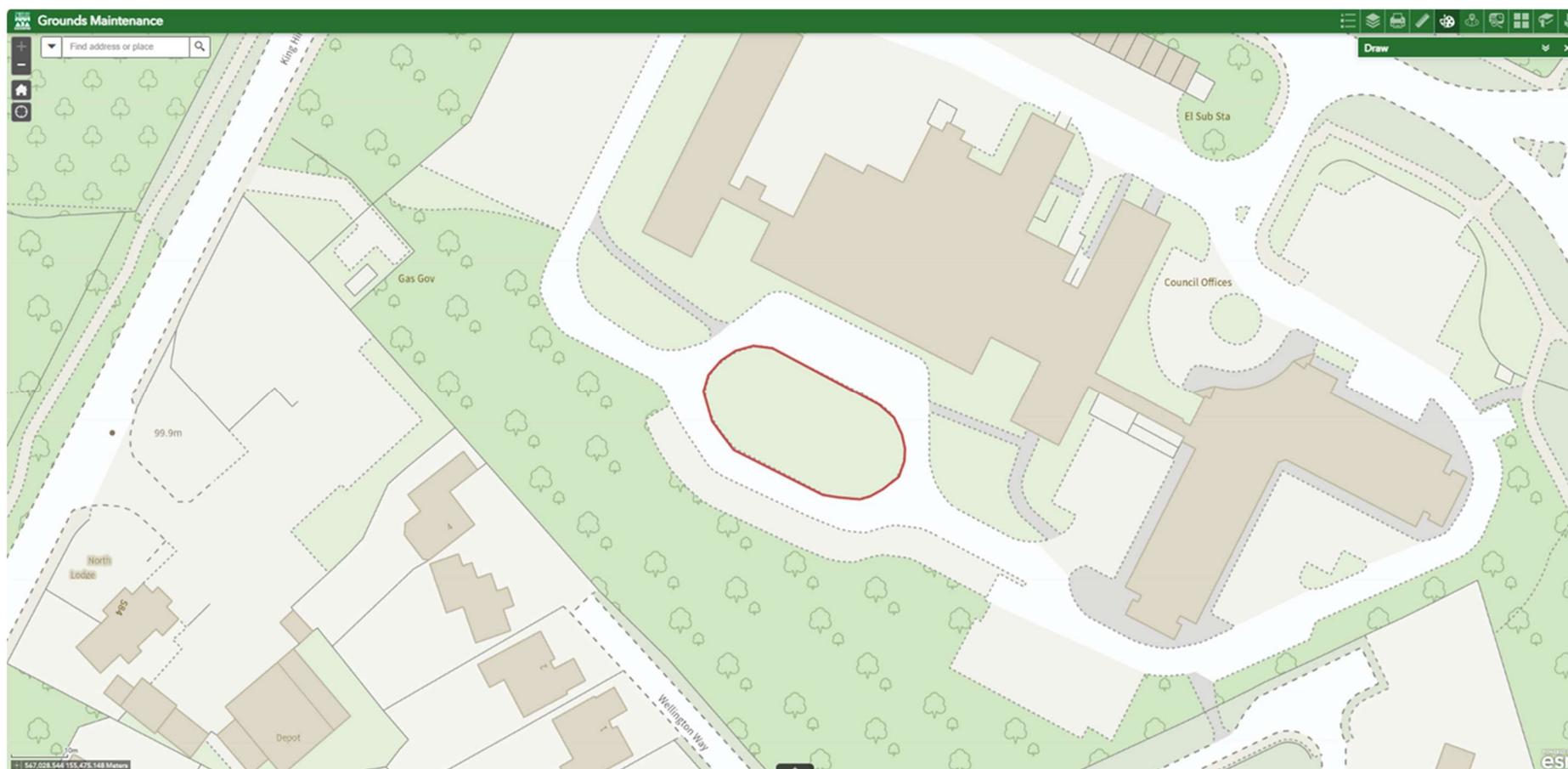
Plant List	Number of times plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Autumn hawkbit	5	1	<i>Scorzoneroides autumnalis</i>	0.55%
Bare ground	8	2		1.58%
Bermudagrass	1	3	<i>Cynodon dactylon</i>	0.00%
Broad-leaved dock	4	4	<i>Rumex obtusifolius</i>	1.08%
Common bent	1	5	<i>Agrostis capillaris</i>	0.00%
Common sorrel	1	6	<i>Rumex acetosa</i>	0.00%
Cow parsley	2	7	<i>Anthriscus sylvestris</i>	0.00%

Creeping buttercup	17	8	<i>Ranunculus repens</i>	3.58%
Cuckoo flower	1	9	<i>Cardamine pratensis</i>	0.00%
Curled dock	1	10	<i>Rumex crispus</i>	0.00%
Daisy	1	11	<i>Bellis perennis</i>	0.00%
Dandelion sp.	13	12	<i>Taraxacum officinale</i>	2.50%
English cinquefoil	3	13	<i>Potentilla anglica</i>	0.25%
Grass sp.	60	14	<i>Poaceae</i>	68.67%
Greater plantain	3	15	<i>Plantago major</i>	0.17%
Hairy plantain	1	16	<i>Plantago media</i>	0.08%
Knapweed	6	17	<i>Centaurea nigra</i>	1.50%
Knotgrass	1	18	<i>Polygonum aviculare</i>	0.08%
Meadow barely	1	19	<i>Hordeum secalinum</i>	0.00%
Meadow buttercup	7	20	<i>Ranunculus acris</i>	1.25%
Meadow fox tail	1	21	<i>Alopecurus pratensis</i>	0.00%
Mouse eared chickweed	5	22	<i>Cerastium fontanum</i>	0.50%
Orchard grass	1	23	<i>Dactylis glomerata</i>	0.00%
Ragwort	3	24	<i>Jacobaea vulgaris</i>	0.50%
Ribwort plantain	13	25	<i>Plantago lanceolata</i>	2.23%
Round-leaved cranesbill	1	26	<i>Geranium rotundifolium</i>	0.00%
Ryegrass	1	27	<i>Lolium perenne</i>	0.00%
Sessile oak	1	28	<i>Quercus petraea</i>	0.00%
Smooth cat's ear	4	29	<i>Hypochaeris glabra</i>	0.33%
Spotted medick	3	30	<i>Medicago arabica</i>	1.83%
White beam	1	31	<i>Sorbus aria</i>	0.00%
White clover	35	32	<i>Trifolium repens</i>	12.92%
Wild cherry	2	33	<i>Prunus avium</i>	0.08%
Wood avens	1	34	<i>Geum urbanum</i>	0.00%

Yarrow	4	35	<i>Achillea millefolium</i>	0.30%
Yorkshire fog	1	36	<i>Holcus lanatus</i>	0.00%
<b>Grand Total</b>	<b>214</b>	<b>35</b>		<b>100.00%</b>

<b>Other non-plant species</b>	<b>Latin name</b>
7-spot ladybird	<i>Coccinella septempunctata</i>
Buff-tailed bumblebee	<i>Bombus terrestris</i>
Common carder bee	<i>Bombus pascuorum</i>
Early bumblebee	<i>Bombus pratorum</i>
Gatekeeper butterfly	<i>Pyronia tithonus</i>
Large white butterfly	<i>Pieris brassicae</i>
Red-tailed bumblebee	<i>Bombus lapidaries</i>
Speckled wood butterfly	<i>Pararge aegeria</i>

## Survey Results - Gibson building



The RNR at Gibson building was one of the most diverse sites in terms of the number of species within the quadrat, and with grass under 50% of the area, this suggests that it has a high herb cover, and it is reflected in the invertebrate species found on site. It also has a large amount of green space around it and good connectivity to other sites, which makes it more valuable, for its floral diversity, as wildlife from the surrounding green spaces can use it like at Kings Hill solar farm and the surrounding woodland. In total, we recorded 44 plant species and 10 non-plant species within Gibson building RNR, and this site had 10 quadrats. In terms of the habitat conditions Gibson building was one of the better sites

for plant species recorded, both in terms of the number, and most of the plant species present were in higher numbers and turned up more often in the quadrats.

### Management recommendations

In terms of management of the site to improve the floral biodiversity, we would suggest an annual cut and collect in September; however, there were plenty of saplings/suckers from the surrounding trees. To keep it as a meadow habitat, these saplings need to be monitored. In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

### Survey recommendations

- Bumblebee Surveys (Beewalk, Once a month between March and September)
- Wildflower Surveys (3 times a year, early (April-May), middle (June-July) and late (August-September))
- Butterfly transects (UKBMS, Weekly 1st April and 29th September)

These three surveys will help monitor the health of site over the year and identify new species for the sites. These surveys can be carried out by Medway Valley Countryside Partnership

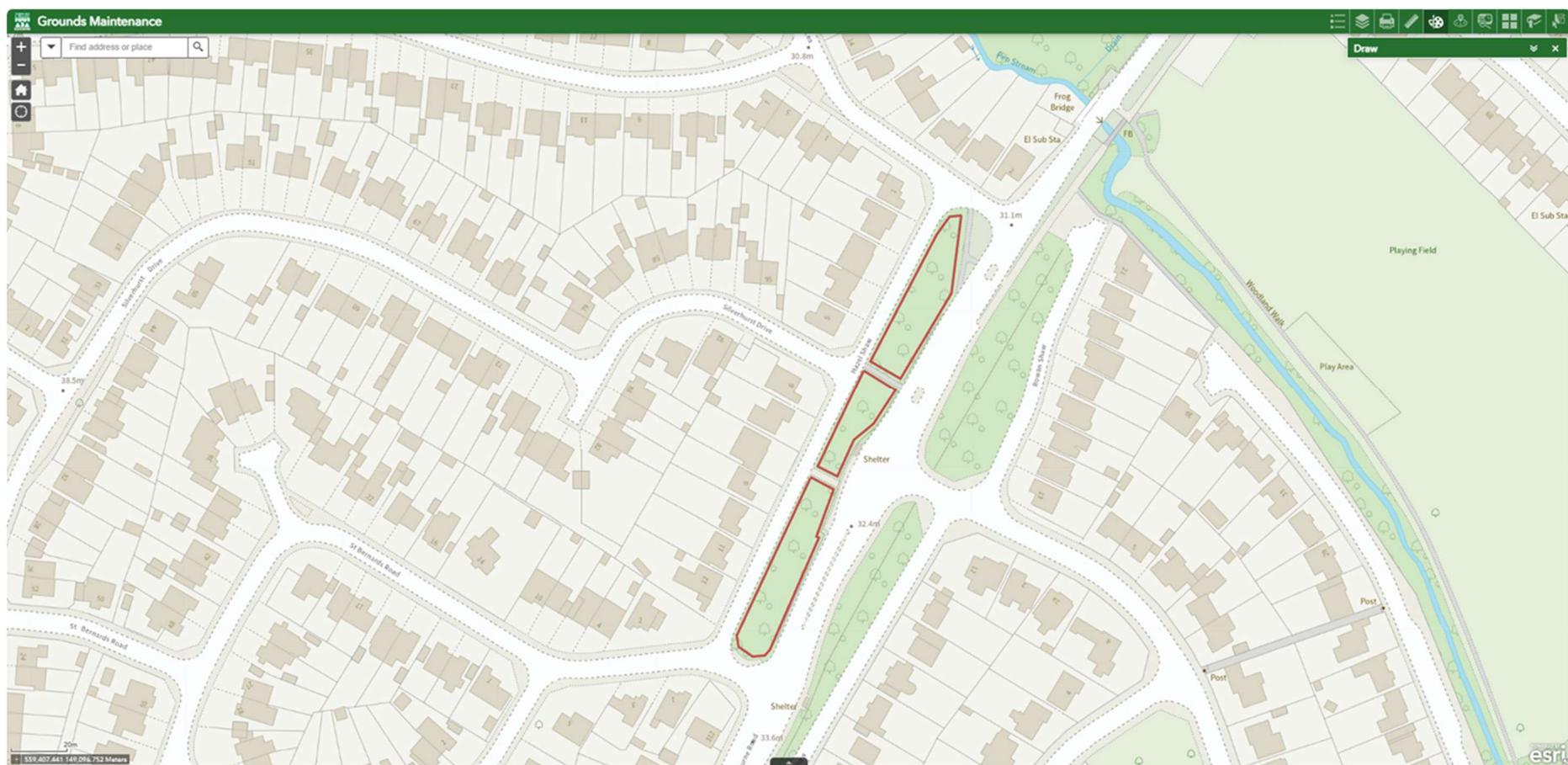
Plant List	Number of times plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Autumn hawkbit	2	1	<i>Scorzoneroides autumnalis</i>	0.25%
Bare ground	3	2		0.92%
Bird's-foot trefoil	34	3	<i>Lotus corniculatus</i>	10.75%
Cocksfoot grass	2	4	<i>Dactylis glomerata</i>	0.17%
Common bent	1	5	<i>Agrostis capillaris</i>	0.00%
Common field sorrel	3	6	<i>Rumex acetosa</i>	0.17%
Common field speedwell	18	7	<i>Veronica persica</i>	1.67%
Common knotgrass	1	8	<i>Polygonum aviculare</i>	0.00%
Creeping buttercup	5	9	<i>Ranunculus repens</i>	0.50%

Daisy	4	10	<i>Bellis perennis</i>	0.58%
Dandelion sp.	2	11	<i>Taraxacum officinale</i>	0.08%
Dove's-foot crane's-bill	2	12	<i>Geranium molle</i>	0.08%
Field scabious	5	13	<i>Knautia arvensis</i>	0.58%
Field wood-rush	4	14	<i>Luzula campestris</i>	0.42%
French oat-grass	1	15	<i>Arrhenatherum elatius</i>	0.00%
Germander speedwell	9	16	<i>Veronica chamaedrys</i>	1.17%
Grass sp.	59	17	<i>Poaceae family</i>	49.83%
Greater bird's foot trefoil	2	18	<i>Lotus pedunculatus</i>	1.25%
Greater plantain	1	19	<i>Plantago major</i>	0.00%
Hairy bittercress	1	20	<i>Cardamine hirsuta</i>	0.00%
Hairy hawkbit	2	21	<i>Leontodon hispidus</i>	0.25%
Hairy plantain	1	22	<i>Plantago media</i>	0.08%
Ivy	1	23	<i>Hedera helix</i>	0.00%
Lady's bedstraw	4	24	<i>Galium verum</i>	0.67%
Lesser stitchwort	9	25	<i>Stellaria graminea</i>	0.75%
Lesser trefoil	1	26	<i>Trifolium dubium</i>	0.08%
Meadow buttercup	17	27	<i>Ranunculus acris</i>	4.42%
Mouse-ear chickweed	3	28	<i>Cerastium fontanum</i>	0.17%
Mouse-ear-hawkweed	17	29	<i>Pilosella officinarum</i>	3.48%
Ragwort	2	30	<i>Jacobaea vulgaris</i>	0.25%
Ribwort plantain	15	31	<i>Plantago lanceolata</i>	2.33%
Selfheal	7	32	<i>Prunella vulgaris</i>	0.67%
Sessile oak	6	33	<i>Quercus petraea</i>	0.67%
Smooth cat's ear	2	34	<i>Hypochaeris glabra</i>	0.00%
Sphagnum moss	8	35	<i>Sphagnum spp.</i>	1.92%
Spring sedge	6	36	<i>Carex caryophyllea</i>	0.73%
Sweet vernal grass	3	37	<i>Anthoxanthum odoratum</i>	0.00%

Tall ryegrass	1	38	<i>Lolium arundinaceum</i>	0.00%
Thinleaf false-brome	1	39	<i>Brachypodium sylvaticum</i>	0.00%
Timothy	2	40	<i>Phleum pratense</i>	0.08%
Wall lettuce	1	41	<i>Mycelis muralis</i>	0.00%
White clover	28	42	<i>Trifolium repens</i>	2.92%
Wild cherry	10	43	<i>Prunus avium</i>	2.08%
Wood avens	2	44	<i>Geum urbanum</i>	0.17%
Yarrow	42	45	<i>Achillea millefolium</i>	9.87%
Yorkshire fog	1	46	<i>Holcus lanatus</i>	0.00%
<b>Grand total</b>	<b>351</b>	<b>44</b>		<b>100.00%</b>

Other non-plant species	Latin names
Blue-tailed damselfly	<i>Ischnura elegans</i>
Buff-tailed bumblebee	<i>Bombus terrestris</i>
Meadow brown butterfly	<i>Maniola jurtina</i>
Common froghopper	<i>Philaenus spumarius</i>
Grey wagtail	<i>Motacilla cinerea</i>
Azure damselfly	<i>Coenagrion puella</i>
Common blue butterfly	<i>Polyommatus icarus</i>
Common carder bee	<i>Bombus pascuorum</i>
7 spot lady bird	<i>Coccinella septempunctata</i>
Common blue damselfly	<i>Enallagma cyathigerum</i>

## Survey Results - Hazel Shaw RNR



The RNR at Hazel Shaw is the site with the second-highest number of species. The site is split into three separate sections, split by pathways. This was one of the sites that suffered the most from high temperatures and a lack of rain this year. From July, the effects of the summer their started to increase bare ground cover by the dry and dying vegetation. However, this site benefits from the mosaic habitat created by the trees and hedgerows, increasing the number of plant species present. This is like the effect on Brook Street. It is also on the edge of Tonbridge town, so it has access to the green spaces just outside Tonbridge, providing good connectivity and making it more accessible to wildlife. In total, we

recorded 68 plant species and 9 non-plant species within Hazel Shaw RNR, and this site had 30 quadrats. In terms of habitat conditions, Hazel Shaw is one of the better sites for plant species diversity. Hazel Shaw has a good seed bank and does not need to be sown.

### Management recommendations

In terms of management, we suggest a cut and collect once a year in September. In addition to the cut and collect, we suggest having a regular cut of a 1m buffer around the RNR flowing in the roadside and footpaths. This will help improve access to the site and focus foot fall. We would also recommend expanding the RNR to include the triangle piece of land at the end of the site (TQ 59631 49101). In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

### Survey recommendations

- Bumblebee Surveys (Beewalk, Once a month between March and September)
- Wildflower Surveys (3 times a year, early (April-May), middle (June-July) and late (August-September))
- Butterfly transects (UKBMS, Weekly 1st April and 29th September)

These three surveys will help monitor the health of site over the year and identify new species for the sites. These surveys can be carried out by Medway Valley Countryside Partnership

Plant List	Number of times plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Ash	1	1	<i>Fraxinus excelsior</i>	0.00%
Autumn hawkbit	6	2	<i>Scorzoneroides autumnalis</i>	0.17%
Bare ground	124	3		24.56%
Bird's-foot-trefoil	4	4	<i>Lotus corniculatus</i>	0.28%
Black medick	10	5	<i>Medicago lupulina</i>	1.33%
Bluebell	3	6	<i>Hyacinthoides non-scripta</i>	0.03%
Bramble	3	7	<i>Rubus fruticosus agg.</i>	0.00%
Bugle	3	8	<i>Ajuga reptans</i>	0.03%
Cleavers	2	9	<i>Galium aparine</i>	0.00%

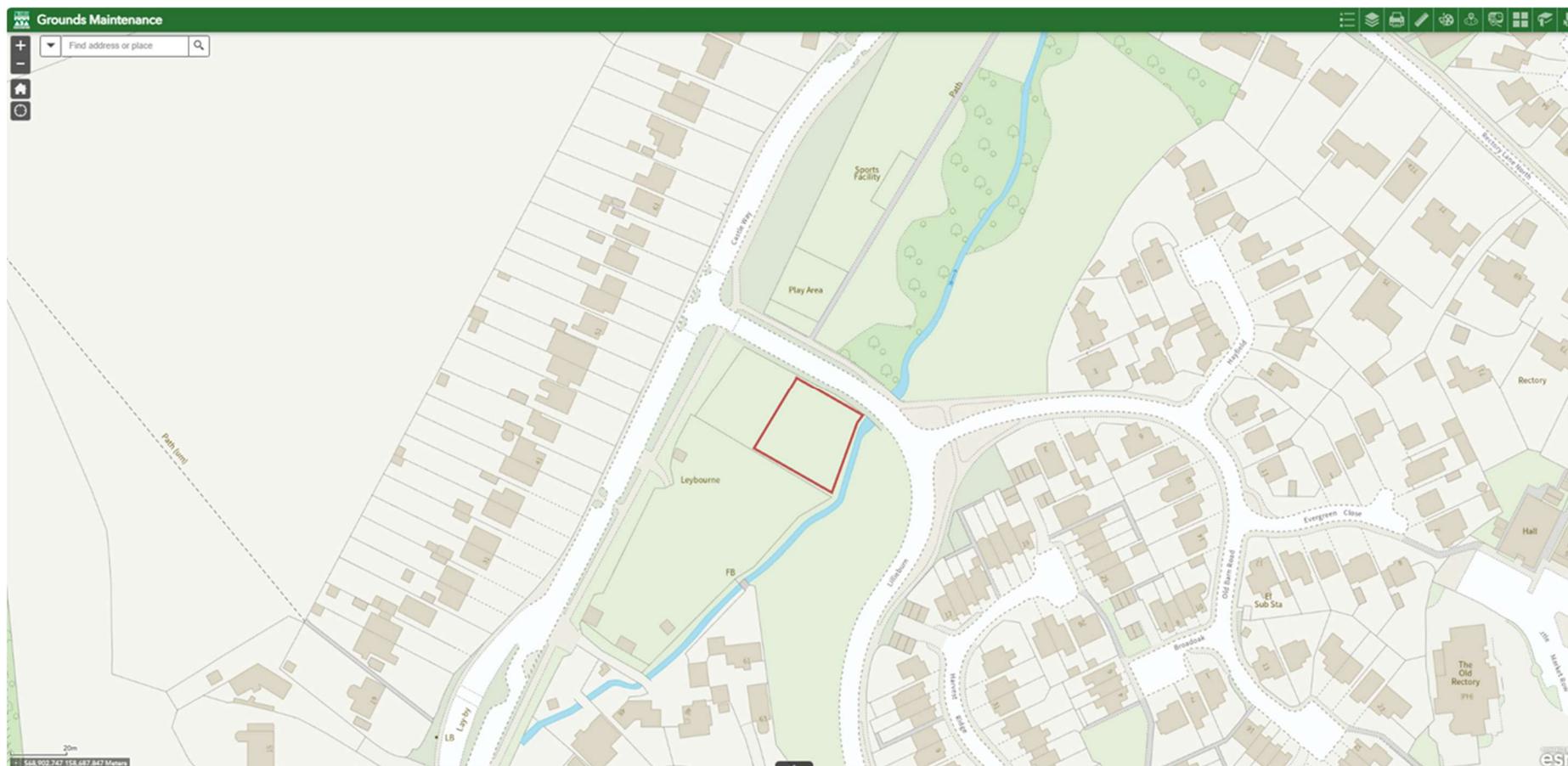
Cocks foot	2	10	<i>Dactylis glomerata</i>	0.03%
Common cat's ear	4	11	<i>Hypochaeris radicata</i>	0.14%
Common dogs' violet	7	12	<i>Viola riviniana</i>	0.14%
Common sorrel	1	13	<i>Rumex acetosa</i>	0.00%
Common vetch	2	14	<i>Vicia sativa</i>	0.08%
Cow parsley	5	15	<i>Anthriscus sylvestris</i>	0.08%
Creeping bent	1	16	<i>Agrostis stolonifera</i>	0.00%
Creeping buttercup	12	17	<i>Ranunculus repens</i>	0.44%
Curled dock	9	18	<i>Rumex crispus</i>	0.22%
Daisy	33	19	<i>Bellis perennis</i>	1.44%
Dandelion sp.	70	20	<i>Taraxacum officinale</i> agg.	2.61%
Dove's-foot crane's-bill	2	21	<i>Geranium molle</i>	0.17%
Field speedwell	3	22	<i>Veronica persica</i>	0.39%
Germander speedwell	13	23	<i>Veronica chamaedrys</i>	0.75%
Grape hyacinth	1	24	<i>Muscari armeniacum</i>	0.00%
Grass sp.	171	25	<i>Poaceae spp.</i>	45.31%
Greater plantain	33	26	<i>Plantago major</i>	1.56%
Greater stitchwort	1	27	<i>Stellaria holostea</i>	0.00%
Hawthorn	5	28	<i>Crataegus monogyna</i>	0.14%
Hazel	2	29	<i>Corylus avellana</i>	0.00%
Herb robert	1	30	<i>Geranium robertianum</i>	0.00%
Hop trefoil	3	31	<i>Trifolium campestre</i>	0.11%
Hory ragwort	1	32	<i>Jacobaea erucifolia</i>	0.00%
Knot grass	3	33	<i>Polygonum aviculare</i>	0.11%
Lesser celandine	7	34	<i>Ficaria verna</i>	0.17%
Lesser hawkbit	4	35	<i>Leontodon saxatilis</i>	0.31%
Lords-and-ladies	3	36	<i>Arum maculatum</i>	0.03%
Meadow buttercup	12	37	<i>Ranunculus acris</i>	0.28%

Mouse-ear chickweed	4	38	<i>Cerastium fontanum</i>	0.03%
Narrow-leaved everlasting-pea	2	39	<i>Lathyrus sylvestris</i>	0.08%
Orchard grass	1	40	<i>Dactylis glomerata</i>	0.00%
Ox-eye daisy	1	41	<i>Leucanthemum vulgare</i>	0.00%
Poison ivy	15	42	<i>Toxicodendron radicans</i>	0.64%
Prickly sow-thistle	1	43	<i>Sonchus asper</i>	0.00%
Primrose	4	44	<i>Primula vulgaris</i>	0.08%
Ragwort	16	45	<i>Jacobaea vulgaris</i>	0.78%
Ribwort plantain	39	46	<i>Plantago lanceolata</i>	1.64%
Ryegrass	1	47	<i>Lolium perenne</i>	0.00%
Selfheal	6	48	<i>Prunella vulgaris</i>	0.22%
Sessile oak	8	49	<i>Quercus petraea</i>	0.28%
Smooth cat's ear	4	50	<i>Hypochaeris glabra</i>	0.17%
Smooth sow-thistle	1	51	<i>Sonchus oleraceus</i>	0.00%
Soft-brome	1	52	<i>Bromus hordeaceus</i>	0.00%
Spear thistle	2	53	<i>Cirsium vulgare</i>	0.11%
Sphagnum moss	10	54	<i>Sphagnum spp.</i>	2.28%
Spotted medick	1	55	<i>Medicago arabica</i>	0.06%
Spring sedge	3	56	<i>Carex caryophyllea</i>	0.03%
Sweet chestnut	1	57	<i>Castanea sativa</i>	0.00%
Tall fleabane	1	58	<i>Pulicaria dysenterica</i>	0.06%
Thyme-leaved speedwell	2	59	<i>Veronica serpyllifolia</i>	0.06%
Turkey oak	1	60	<i>Quercus cerris</i>	0.00%
Upright hedge parsley	1	61	<i>Torilis japonica</i>	0.03%
Violet helleborine	1	62	<i>Epipactis purpurata</i>	0.00%
White clover	100	63	<i>Trifolium repens</i>	12.19%
Wild carrot	1	64	<i>Daucus carota</i>	0.03%

Wild cherry	1	65	<i>Prunus avium</i>	0.03%
Wild garlic	1	66	<i>Allium ursinum</i>	0.00%
Wild strawberry	3	67	<i>Fragaria vesca</i>	0.03%
Wood avens	4	68	<i>Geum urbanum</i>	0.03%
Yarrow	5	69	<i>Achillea millefolium</i>	0.25%
Yorkshire fog	2	70	<i>Holcus lanatus</i>	0.03%
<b>Grand total</b>	<b>811</b>	<b>68</b>		<b>100.00%</b>

Other non-plant species	Latin names
Tree bumblebee	<i>Bombus hypnorum</i>
Large white butterfly	<i>Pieris brassicae</i>
Meadow brown butterfly	<i>Maniola jurtina</i>
Red-tailed bumblebee	<i>Bombus lapidarius</i>
Ivy mining bee	<i>Colletes hederæ</i>
Batman hoverfly	<i>Myathropa florea</i>
Social wasp	<i>Vespula vulgaris</i>
Honeybee	<i>Apis mellifera</i>
Red admiral butterfly	<i>Vanessa atalanta</i>

## Survey Results - Lillieburn RNR



The RNR at Lillieburn is a good site with one of the highest vegetation heights; however, as with the vegetation at Basted Mill RNR, the long grasses tended to dominate the wildflowers. However, it was not as bad as the Basted Mill RNR, as some of the flowers were able to flower. In total, we recorded 49 plant species and six non-plant species within Lillieburn RNR, and this site had 10 quadrats. Lillieburn has a good seed bank and does not need to be sown with new wildflowers.

## Management recommendations

In terms of management, we suggest a cut-and-collect once a year in September. However, in the ditch alongside Lillieburn, there is Himalayan balsam, which would need to be removed as it is an invasive species. It is hard to reach and might require brush cutters to access. We would suggest pulling the balsam next year, in the summer. Due to the nature of the site, the cut vegetation could be left in a habitat pile in the corner of the site near the ditch as it will provide good nesting habitat for wildlife. In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

## Survey recommendations

- Bumblebee Surveys (Beewalk, Once a month between March and September)
- Wildflower Surveys (3 times a year, early (April-May), middle (June-July) and late (August-September))
- Butterfly transects (UKBMS, Weekly 1st April and 29th September)

These three surveys will help monitor the health of site over the year and identify new species for the sites. These surveys can be carried out by Medway Valley Countryside Partnership

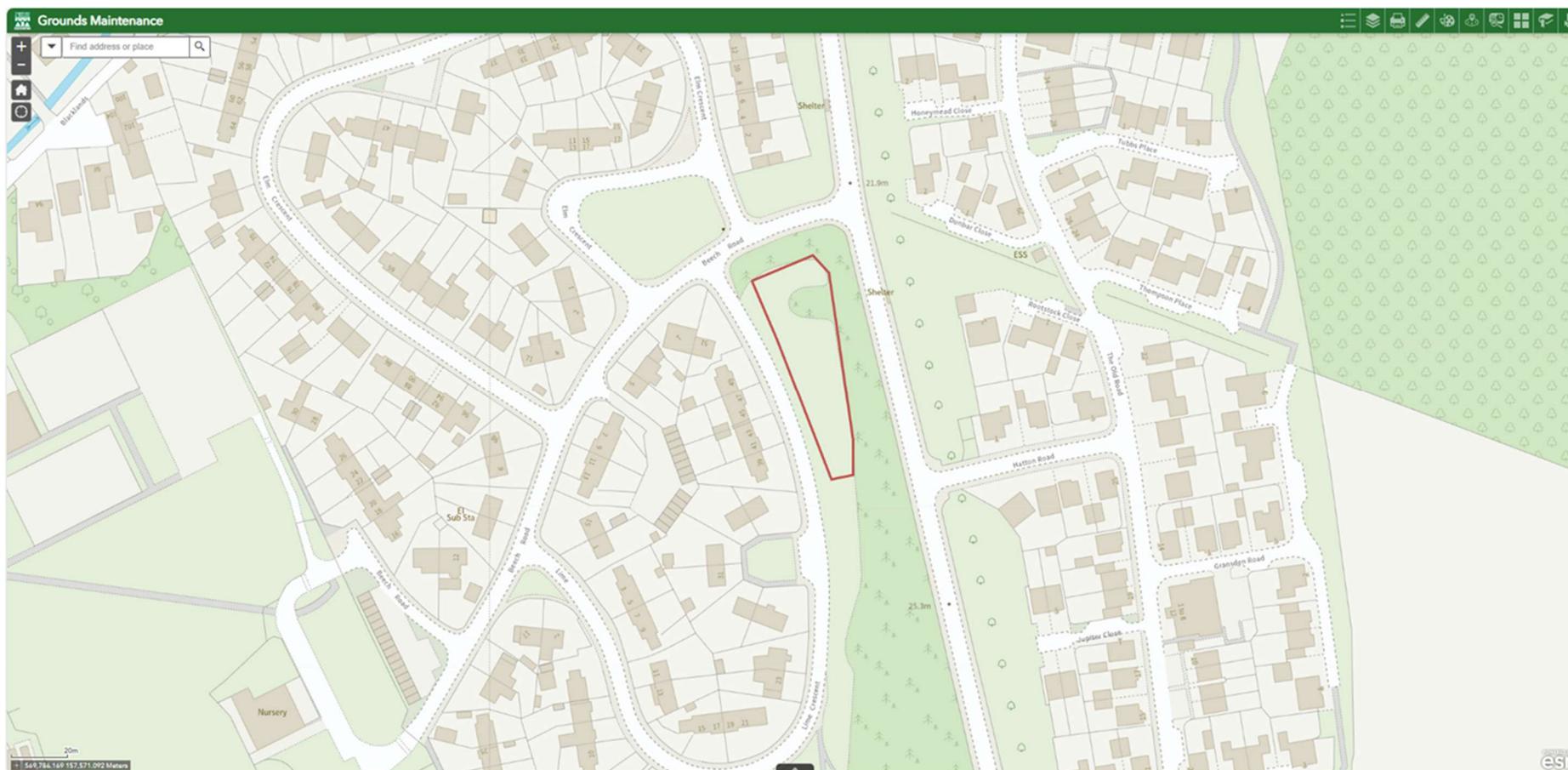
Plant List	Number of times plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Autumn hawkbit	3	1	<i>Scorzoneroides autumnalis</i>	0.50%
Bare ground	3	2		1.08%
Bramble	1	3	<i>Rubus fruticosus</i>	0.00%
Bush grass	1	4	<i>Calamagrostis epigejos</i>	0.00%
Cleavers	1	5	<i>Galium aparine</i>	0.00%
Cock's-foot	1	6	<i>Dactylis glomerata</i>	0.00%
Common bent	1	7	<i>Agrostis capillaris</i>	0.00%
Common mallow	1	8	<i>Malva sylvestris</i>	0.50%
Common sorrel	4	9	<i>Rumex acetosa</i>	0.58%
Couch grass	1	10	<i>Elymus repens</i>	0.00%
Cow parsley	1	11	<i>Anthriscus sylvestris</i>	0.00%

Creeping buttercup	9	12	<i>Ranunculus repens</i>	0.75%
Creeping cinquefoil	1	13	<i>Potentilla reptans</i>	0.00%
Curled dock	3	14	<i>Rumex crispus</i>	0.67%
Cut-leaved cranesbill	5	15	<i>Geranium dissectum</i>	0.33%
Daffodil	1	16	<i>Narcissus pseudonarcissus</i>	0.00%
Daisy	5	17	<i>Bellis perennis</i>	0.25%
Dandelion sp.	7	18	<i>Taraxacum officinale</i>	0.92%
Dove's-foot crane's-bill	7	19	<i>Geranium molle</i>	0.58%
Field bindweed	3	20	<i>Convolvulus arvensis</i>	0.25%
Field speedwell	10	21	<i>Veronica persica</i>	1.25%
Germander speedwell	6	22	<i>Veronica chamaedrys</i>	1.42%
Grass sp.	59	23	<i>Poaceae spp.</i>	60.92%
Greater plantain	1	24	<i>Plantago major</i>	0.00%
Ground ivy	3	25	<i>Glechoma hederacea</i>	0.25%
Hairy cat's ear	1	26	<i>Hypochaeris radicata</i>	0.00%
Hawthorn	1	27	<i>Crataegus monogyna</i>	0.08%
Himalayan balsam	1	28	<i>Impatiens glandulifera</i>	0.00%
Lesser stitchwort	7	29	<i>Stellaria graminea</i>	0.50%
Lords-and-ladies	1	30	<i>Arum maculatum</i>	0.00%
Meadow buttercup	6	31	<i>Ranunculus acris</i>	0.75%
Mouse-ear chickweed	5	32	<i>Cerastium fontanum</i>	0.33%
Perennial rye grass	1	33	<i>Lolium perenne</i>	0.00%
Ragwort	4	34	<i>Jacobaea vulgaris</i>	0.42%
Red deadnettle	1	35	<i>Lamium purpureum</i>	0.00%
Ribwort plantain	23	36	<i>Plantago lanceolata</i>	4.75%
Round-leaved cranesbill	1	37	<i>Geranium rotundifolium</i>	0.00%
Selfheal	2	38	<i>Prunella vulgaris</i>	0.17%

Smooth cats ear	1	39	<i>Hypochaeris glabra</i>	0.00%
Smooth hawk's beard	5	40	<i>Crepis capillaris</i>	1.00%
Soft brome	1	41	<i>Bromus hordeaceus</i>	0.00%
Spear thistle	1	42	<i>Cirsium vulgare</i>	1.00%
Spotted medick	1	43	<i>Medicago arabica</i>	0.00%
Stinging nettle	1	44	<i>Urtica dioica</i>	0.00%
Timothy	1	45	<i>Phleum pratense</i>	0.00%
Wall barley	1	46	<i>Hordeum murinum</i>	0.00%
White clover	21	47	<i>Trifolium repens</i>	3.83%
Wild carrot	1	48	<i>Daucus carota</i>	0.17%
Wood avens	2	49	<i>Geum urbanum</i>	0.17%
Yarrow	31	50	<i>Achillea millefolium</i>	16.58%
Yorkshire fog	1	51	<i>Holcus lanatus</i>	0.00%
<b>Grand total</b>	<b>260</b>	<b>49</b>		<b>100.00%</b>

Other non-plant species	Latin names
Gatekeeper Butterfly	<i>Pyronia tithonus</i>
Meadow brown butterfly	<i>Maniola jurtina</i>
Common carder bee	<i>Bombus pascuorum</i>
Small mammal nest	<i>Unknow</i>
Red tailed bumble	<i>Bombus lapidarius</i>
Honeybee	<i>Apis mellifera</i>

## Survey Results - Lime Crescent



The RNR at Lime Crescent is a good site with a good number of species present. Lime Crescent has a lot of green spaces around it compared to Carnation Green, even though it is less than 1 mile away; however, this could be why limited invertebrate species were recorded there, as there may be better pollination resources in the other green spaces, such as East Malling Research. In total, we recorded 45 plant species and one non-plant species within Lime Crescent RNR, and this site had 10 quadrats.

## Management recommendations

Lime Crescent RNR has a good seed bank and does not need to be sown with new wildflowers. For future management, we suggest a cut-and-collect once a year in September. Other improvement, could be to expand the area of the RNR to cover the more of the area next to lime crescent, to still allow public access a 1 meter buffer could be created between the RNR and the road/hedgerow and cut more regularly than RNR, therefore the RNR looks deliberate and is less likely to get complaints, alternatively you could reduce the cutting regime around the RNR and increase the cutting height to allow for the flowers to come up. In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

## Survey recommendations

- Bumblebee Surveys (Beewalk, Once a month between March and September)
- Wildflower Surveys (3 times a year, early (April-May), middle (June-July) and late (August-September))
- Butterfly transects (UKBMS, Weekly 1st April and 29th September)

These three surveys will help monitor the health of site over the year and identify new species for the sites. These surveys can be carried out by Medway Valley Countryside Partnership

Plant List	Number of times plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Ash	1	1	<i>Fraxinus excelsior</i>	0.00%
Autumn hawkbit	4	2	<i>Scorzoneroides autumnalis</i>	0.58%
Bare ground	4	3		2.17%
Beech	1	4	<i>Fagus sylvatica</i>	0.00%
Bird's-foot trefoil	1	5	<i>Lotus corniculatus</i>	0.17%
Black medick	7	6	<i>Medicago lupulina</i>	0.58%
Cocks foot	2	7	<i>Dactylis glomerata</i>	0.00%
Common bent	1	8	<i>Agrostis capillaris</i>	0.00%
Common chickweed	1	9	<i>Stellaria media</i>	0.00%

Cow parsley	5	10	<i>Anthriscus sylvestris</i>	0.77%
Creeping buttercup	1	11	<i>Ranunculus repens</i>	0.33%
Crested dog's-tail	1	12	<i>Cynosurus cristatus</i>	0.00%
Curled dock	2	13	<i>Rumex crispus</i>	0.08%
Cut-leaved cranesbill	1	14	<i>Geranium dissectum</i>	0.08%
Daisy	14	15	<i>Bellis perennis</i>	3.23%
Dandelion sp.	26	16	<i>Taraxacum officinale</i> agg.	5.17%
Dove's-foot crane's- bill	2	17	<i>Geranium molle</i>	0.58%
Elder	2	18	<i>Sambucus nigra</i>	0.00%
English oak	2	19	<i>Quercus robur</i>	0.08%
Field speedwell	3	20	<i>Veronica agrestis</i>	0.50%
Fox tail barely	1	21	<i>Hordeum jubatum</i>	0.00%
Germander speedwell	1	22	<i>Veronica chamaedrys</i>	0.08%
Grass sp.	58	23	Generic	57.47%
Greater plantain	5	24	<i>Plantago major</i>	1.08%
Hedge bindweed	1	25	<i>Calystegia sepium</i>	0.58%
Ivy	2	26	<i>Hedera helix</i>	0.00%
Large leaf lime	1	27	<i>Tilia platyphyllos</i>	0.00%
Lesser celandine	2	28	<i>Ficaria verna</i>	0.00%
Lesser hawkbit	1	29	<i>Leontodon saxatilis</i>	0.08%
Lesser stitchwort	2	30	<i>Stellaria graminea</i>	0.02%
Meadow buttercup	2	31	<i>Ranunculus acris</i>	0.00%
Mouse-ear chickweed	4	32	<i>Cerastium fontanum</i>	0.10%
Perennial ryegrass	1	33	<i>Lolium perenne</i>	0.00%
Ragwort	6	34	<i>Jacobaea vulgaris</i>	0.67%
Red deadnettle	1	35	<i>Lamium purpureum</i>	0.00%

Ribwort plantain	36	36	<i>Plantago lanceolata</i>	5.75%
Round-leaved crane's-bill	1	37	<i>Geranium rotundifolium</i>	0.00%
Smooth cats ear	4	38	<i>Hypochaeris glabra</i>	0.50%
Soft brome	1	39	<i>Bromus hordeaceus</i>	0.00%
Spotted medick	1	40	<i>Medicago arabica</i>	0.00%
Timothy	1	41	<i>Phleum pratense</i>	0.00%
Tyme speedwell	1	42	<i>Veronica serpyllifolia</i>	0.08%
Wall barely	1	43	<i>Hordeum murinum</i>	0.00%
White clover	53	44	<i>Trifolium repens</i>	18.42%
Wild carrot	3	45	<i>Daucus carota</i>	0.08%
Wild cherry	1	46	<i>Prunus avium</i>	0.00%
Yarrow	4	47	<i>Achillea millefolium</i>	0.75%
<b>Grand total</b>	<b>276</b>	<b>45</b>		<b>100.00%</b>

Other non-plant species	Latin names
Large White Butterfly	<i>Pieris brassicae</i>

## Survey Results - River Lawn



The RNR at River Lawn has one of the highest percentages of herb cover and the lowest grass cover of all the sites. Also, the River lawn has good connectivity and access to other green spaces like the river and Racecourse Park, which could lead to a wider variety of species accessing the site. However, it is one of the higher-traffic areas, with people accessing or walking through the site, which could discourage wildlife from using it. During the June survey the RNR was cut more regularly by an unknown third party and didn't allow some of the wildflowers to flower. In total, we recorded 36 plant species and two non-plant species within River Lawn RNR, and this site had 10 quadrats.

## Management recommendations

River lawn RNR has a good seed bank and does not need to be sown with new wildflowers, however when surveying it seemed like it was cut and left in June, therefore for future management we suggest a cut-and-collect once a year in September, to allow the wildflowers increase and flower, however it is a high traffic area and if the vegetation needs to be low for access then alternatively, the centre of the RNR could be left and have a cut and collect in September, but a cut and collect with a buffer of 1 meter more regularly. Managing it this way would make the RNR look deliberate; therefore, it is less likely to get complaints. Another improvement could be to expand the area of the RNR to cover the final triangle in the river lawn area. In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

## Survey recommendations

- Bumblebee Surveys (Beewalk, Once a month between March and September)
- Wildflower Surveys (3 times a year, early (April-May), middle (June-July) and late (August-September))
- Butterfly transects (UKBMS, Weekly 1st April and 29th September)

These three surveys will help monitor the health of site over the year and identify new species for the sites. These surveys can be carried out by Medway Valley Countryside Partnership

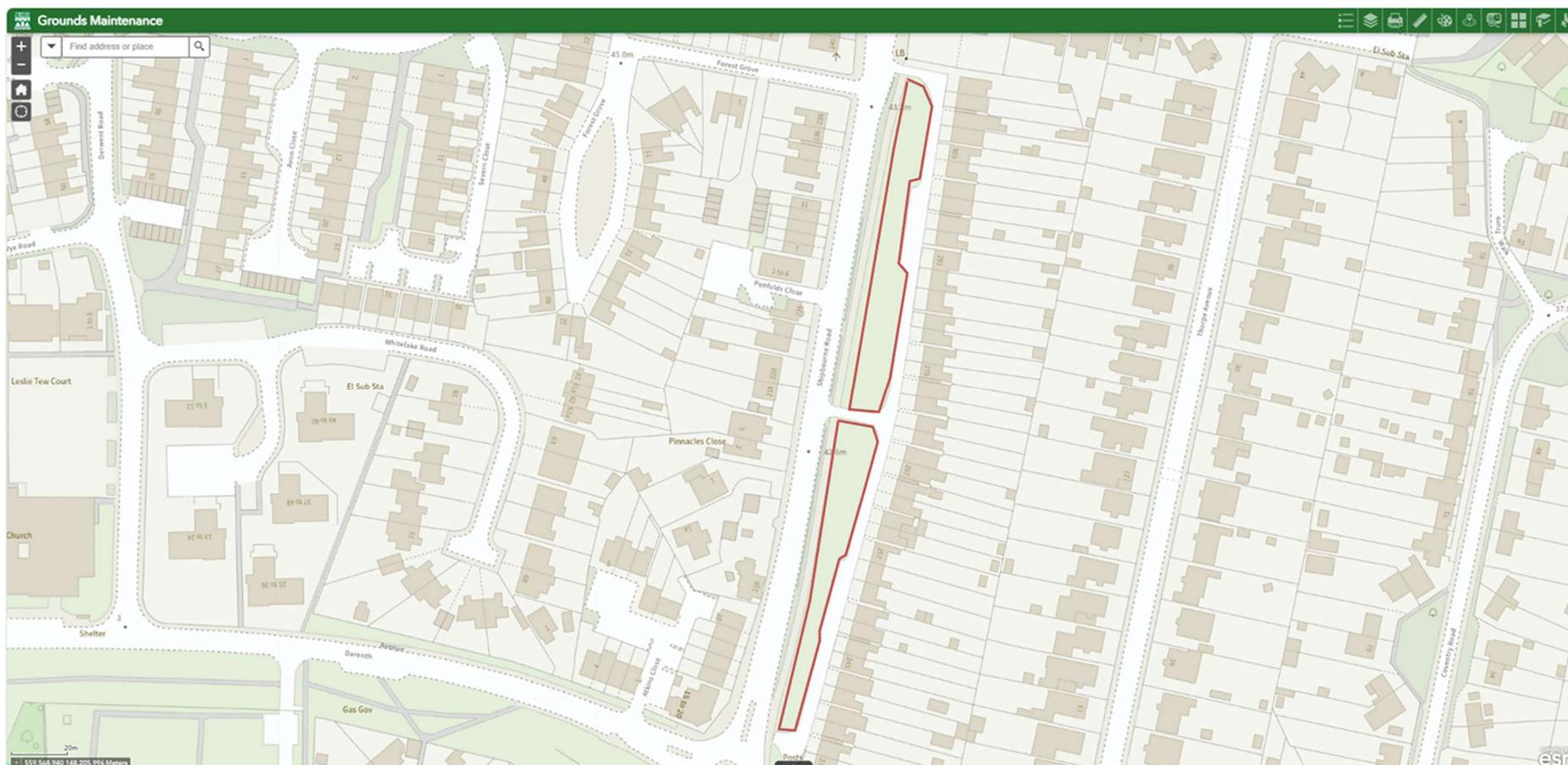
Plant list	Number of times Plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Bare ground	23	1		11.33%
Black medick	2	2	<i>Medicago lupulina</i>	0.42%
Bristly ox-tongue	4	3	<i>Helminthotheca echioides</i>	0.75%
Broad-leaved dock	13	4	<i>Rumex obtusifolius</i>	2.33%
Cleavers	1	5	<i>Galium aparine</i>	0.00%
Common mallow	6	6	<i>Malva sylvestris</i>	2.25%
Common ragwort	1	7	<i>Jacobaea vulgaris</i>	0.00%
Common sorrel	4	8	<i>Rumex acetosa</i>	0.92%

Creeping buttercup	16	9	<i>Ranunculus repens</i>	2.92%
Creeping wood sorrel	1	10	<i>Oxalis corniculata</i>	0.08%
Cyclamen hederifolium	2	11	<i>Cyclamen hederifolium</i>	0.00%
Daisy	2	12	<i>Bellis perennis</i>	0.17%
Dandelion sp.	30	13	<i>Taraxacum officinale</i> agg.	4.42%
Dove's-foot crane's-bill	1	14	<i>Geranium molle</i>	0.08%
English cinquefoil	1	15	<i>Potentilla anglica</i>	0.00%
English oak	1	16	<i>Quercus robur</i>	0.00%
Field bindweed	1	17	<i>Convolvulus arvensis</i>	0.50%
Field speedwell	1	18	<i>Veronica persica</i>	0.00%
Grass sp.	58	19	<i>Poaceae spp.</i>	41.50%
Greater plantain	19	20	<i>Plantago major</i>	2.58%
Green alkanet	1	21	<i>Pentaglottis sempervirens</i>	0.00%
Knotgrass	3	22	<i>Polygonum aviculare</i>	0.17%
Large leaf lime	1	23	<i>Tilia platyphyllos</i>	0.00%
Lesser celandine	2	24	<i>Ficaria verna</i>	0.17%
Meadow buttercup	1	25	<i>Ranunculus acris</i>	0.00%
Ribwort plantain	1	26	<i>Plantago lanceolata</i>	0.08%
Narrow-leaved bird's-foot-trefoil	1	27	<i>Lotus tenuis</i>	0.08%
Norway maple	1	28	<i>Acer platanoides</i>	0.00%
Smooth sow thistle	3	29	<i>Sonchus oleraceus</i>	0.17%
Spanish bluebell	1	30	<i>Hyacinthoides hispanica</i>	0.00%
Spear thistle	2	31	<i>Cirsium vulgare</i>	0.25%
Spotted medick	2	32	<i>Medicago arabica</i>	0.50%

Stinging nettle	3	33	<i>Urtica dioica</i>	0.50%
Variegated ivy	1	34	<i>Hedera helix</i> (variegated)	0.00%
White clover	40	35	<i>Trifolium repens</i>	25.67%
White deadnettle	1	36	<i>Lamium album</i>	0.00%
Wood avens	1	37	<i>Geum urbanum</i>	0.00%
Yarrow	3	38	<i>Achillea millefolium</i>	2.17%
<b>Grand total</b>	<b>255</b>	<b>36</b>		<b>1</b>

Other non-plant species	Latin names
Common Wasp	<i>Vespula vulgaris</i>
Brown hawker Dragonfly	<i>Aeshna grandis</i>

## Survey Results - Shipbourne Road



The RNR at Shipbourne Road is a good site with a diverse number of species present. However, in some areas, it has a large proportion of bare ground, which was focused around the areas near the road and where people park their cars/campervans on the grass. In addition to this, whilst surveying, surveyors notice that the path next to the RNR and the main road are high traffic areas, which could cause disturbance to the wildlife. Shipbourne Road has the potential to improve connectivity, for example, Darent Avenue is close and could be connected via the

expansion of the RNRs. In total, we recorded 42 plant species and one non-plant species within Shipbourne Road RNR, and this site had 20 quadrats.

### Management recommendations

Shipbourne Road RNR, has a good seed bank however it could be improved by sowing wildflowers seed. In terms of seed mixes, we would suggest the EM3 mix from Emorsgate Seeds (<https://wildseed.co.uk/product/mixtures/complete-mixtures/general-purpose-meadow-mixtures/special-general-purpose-meadow-mixture/>). Vehicles were parked on the grass which meant that the vegetation level was quite low throughout the year, therefore we would recommend a cut-and-collect once a year in September to allow the wildflowers increase and flower, Another improvement to the RNR could be to expand the area of the RNR to cover the other green space next to Shipbourne Road RNR on the other side of the roundabout between the addresses 151 Shipbourne Road and 231 Shipbourne Road. In addition to this, there could be an expansion to Darenth Avenue as stated above, which would help link the two sites. In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

### Survey recommendations

- Bumblebee Surveys (Beewalk, Once a month between March and September)
- Wildflower Surveys (3 times a year, early (April-May), middle (June-July) and late (August-September))
- Butterfly transects (UKBMS, Weekly 1st April and 29th September)

These three surveys will help monitor the health of site over the year and identify new species for the sites. These surveys can be carried out by Medway Valley Countryside Partnership

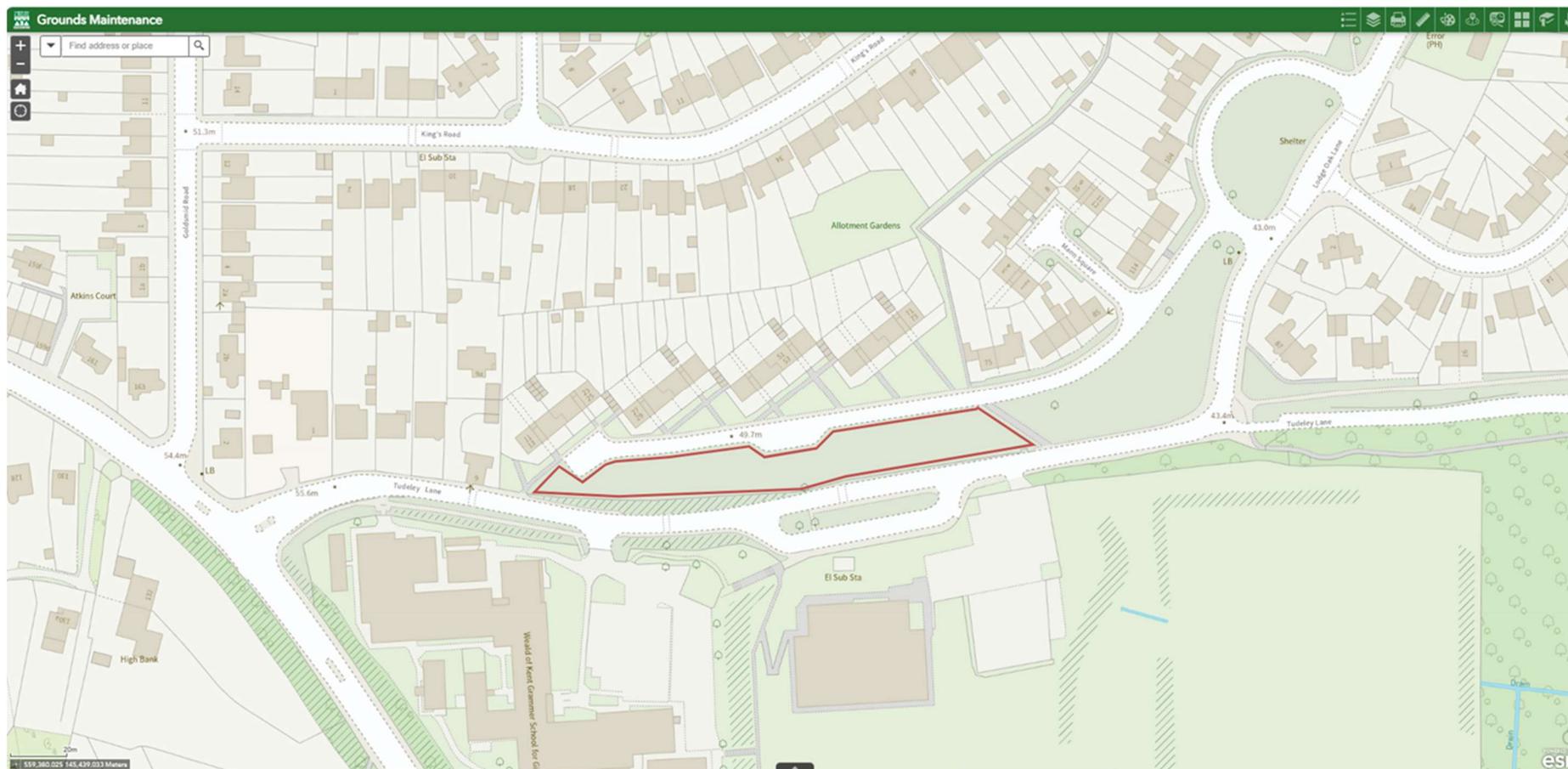
Plant list	Number of times Plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Ash	1	1	<i>Fraxinus excelsior</i>	0.00%
Autumn hawkbit	3	2	<i>Scorzoneroides autumnalis</i>	0.41%
Bare ground	35	3		15.55%
Beech	1	4	<i>Fagus sylvatica</i>	0.00%
Bird's-foot trefoil	1	5	<i>Lotus corniculatus</i>	0.14%

Bluebell	1	6	<i>Hyacinthoides non-scripta</i>	0.00%
Broad leaf lime	1	7	<i>Tilia platyphyllos</i>	0.00%
Cleavers	2	8	<i>Galium aparine</i>	0.00%
Common sorrel	1	9	<i>Rumex acetosa</i>	0.05%
Creeping bent	1	10	<i>Agrostis stolonifera</i>	0.00%
Creeping buttercup	7	11	<i>Ranunculus repens</i>	0.50%
Creeping cinquefoil	1	12	<i>Potentilla reptans</i>	0.00%
Curled dock	2	13	<i>Rumex crispus</i>	0.14%
Daisy	8	14	<i>Bellis perennis</i>	0.36%
Dandelion sp.	40	15	<i>Taraxacum officinale</i>	2.86%
English cinquefoil	7	16	<i>Potentilla anglica</i>	1.09%
Field maple	1	17	<i>Acer campestre</i>	0.00%
Field speedwell	2	18	<i>Veronica persica</i>	0.00%
Germander speedwell	3	19	<i>Veronica chamaedrys</i>	0.14%
Grass sp.	102	20	<i>Poaceae</i>	58.91%
Greater plantain	28	21	<i>Plantago major</i>	2.05%
Hawthorn	2	22	<i>Crataegus monogyna</i>	0.05%
Hedgerow cranesbill	1	23	<i>Geranium pyrenaicum</i>	0.00%
Ivy	1	24	<i>Hedera helix</i>	0.09%
Knotgrass	3	25	<i>Polygonum aviculare</i>	0.05%
Lesser stitchwort	1	26	<i>Stellaria graminea</i>	0.05%
Meadow buttercup	5	27	<i>Ranunculus acris</i>	0.18%
Mountain ash	1	28	<i>Sorbus aucuparia</i>	0.00%
Mouse-eared chickweed	3	29	<i>Cerastium fontanum</i>	0.27%
Norway maple	2	30	<i>Acer platanoides</i>	0.18%
Ragwort	3	31	<i>Jacobaea vulgaris</i>	0.14%
Red deadnettle	1	32	<i>Lamium purpureum</i>	0.00%

Ribwort plantain	23	33	<i>Plantago lanceolata</i>	2.32%
Ryegrass	1	34	<i>Lolium perenne</i>	0.00%
Selfheal	3	35	<i>Prunella vulgaris</i>	0.18%
Sessile oak	4	36	<i>Quercus petraea</i>	0.14%
Silver birch	1	37	<i>Betula pendula</i>	0.00%
Smooth cats ear	5	38	<i>Hypochaeris glabra</i>	0.36%
Smooth hawk's beard	1	39	<i>Crepis capillaris</i>	0.00%
Smooth meadow-grass	1	40	<i>Poa pratensis</i>	0.00%
Wall barley	1	41	<i>Hordeum murinum</i>	0.00%
White clover	59	42	<i>Trifolium repens</i>	12.86%
Wood avens	1	43	<i>Geum urbanum</i>	0.00%
Yarrow	9	44	<i>Achillea millefolium</i>	0.95%
<b>Grand total</b>	<b>380</b>	<b>42</b>		<b>100.00%</b>

Other non-plant species	Latin names
Common wasp	<i>Vespula vulgaris</i>

## Survey Results - Tudeley Lane RNR



The RNR at Tudeley Lane RNR, is a good site with a good number of species present; however, it is on the lower end of the diversity in comparison to the other sites. It is also on the edge of Tonbridge town, so it has access to the green spaces just outside Tonbridge; therefore, it has good connectivity to them, making it more accessible to wildlife to use the site. In total, we recorded 39 plant species and seven non-plant species within Tudeley Lane RNR, and this site had 10 quadrats.

## Management recommendations

Tudeley Lane RNR, has a good seed bank however it could be improved by sowing wildflowers seed. In terms of seed mixes, we would suggest the EM3 mix from Emorsgate Seeds (<https://wildseed.co.uk/product/mixtures/complete-mixtures/general-purpose-meadow-mixtures/special-general-purpose-meadow-mixture/>). Alternately green haying might be an option for the site, if there is a source of green hay locally. In addition, we would recommend a cut-and-collect once a year in September, to allow the wildflowers to increase and flower. Another improvement to the RNR could be to expand the area of the RNR to cover other green spaces, for example, the circular green space next to Tudeley Lane RNR (in front of 94-106 Lodge Oak Ln), if the expansion is not possible, then reducing the cutting regime of the surrounds grassland and increasing the cutting height of the machinery to 75mm would still improve the biodiversity and connectivity of the site. In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

## Survey recommendations

- Bumblebee Surveys (Beewalk, Once a month between March and September)
- Wildflower Surveys (3 times a year, early (April-May), middle (June-July) and late (August-September))
- Butterfly transects (UKBMS, Weekly 1st April and 29th September)

These three surveys will help monitor the health of site over the year and identify new species for the sites. These surveys can be carried out by Medway Valley Countryside Partnership

Plant list	Number of times Plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Autumn hawkbit	3	1	<i>Scorzoneroides autumnalis</i>	0.58%
Bare ground	11	2		3.25%
Black horehound	2	3	<i>Ballota nigra</i>	0.17%
Bramble	1	4	<i>Rubus fruticosus agg.</i>	0.00%
Bristly oxtongue	1	5	<i>Helminthotheca echioides</i>	0.17%
Cleavers	1	6	<i>Galium aparine</i>	0.00%
Cock's-foot	1	7	<i>Dactylis glomerata</i>	0.00%
Common cat's ear	2	8	<i>Hypochaeris radicata</i>	0.08%

Cow parsley	2	9	<i>Anthriscus sylvestris</i>	0.00%
Creeping buttercup	11	10	<i>Ranunculus repens</i>	1.83%
Creeping thistle	4	11	<i>Cirsium arvense</i>	1.33%
Crested dog's-tail	1	12	<i>Cynosurus cristatus</i>	0.00%
Cuckoo flower	1	13	<i>Cardamine pratensis</i>	0.00%
Curled dock	5	14	<i>Rumex crispus</i>	0.58%
Cut-leaved cranesbill	1	15	<i>Geranium dissectum</i>	0.08%
Daisy	3	16	<i>Bellis perennis</i>	0.17%
Dandelion sp.	41	17	<i>Taraxacum spp.</i>	7.42%
Garlic mustard	1	18	<i>Alliaria petiolata</i>	0.00%
Grass sp.	60	19	<i>Poaceae spp.</i>	54.00%
Greater plantain	9	20	<i>Plantago major</i>	0.75%
Green alkanet	1	21	<i>Pentaglottis sempervirens</i>	0.00%
Knapweed	1	22	<i>Centaurea nigra</i>	0.17%
Knotgrass	2	23	<i>Polygonum aviculare</i>	0.08%
Large leaf lime	1	24	<i>Tilia platyphyllos</i>	0.00%
Lords-and-ladies	1	25	<i>Arum maculatum</i>	0.00%
Meadow barely	1	26	<i>Hordeum secalinum</i>	0.00%
Meadow buttercup	1	27	<i>Ranunculus acris</i>	0.08%
Mouse eared chickweed	3	28	<i>Cerastium fontanum</i>	0.08%
Norway maple	1	29	<i>Acer platanoides</i>	0.00%
Ox eye daisy	1	30	<i>Leucanthemum vulgare</i>	0.08%
Ragwort	4	31	<i>Jacobaea vulgaris</i>	0.25%
Ribwort plantain	14	32	<i>Plantago lanceolata</i>	3.58%
Rye grass	1	33	<i>Lolium perenne</i>	0.00%
Smooth cat's ear	5	34	<i>Hypochaeris glabra</i>	0.58%
Spotted medick	1	35	<i>Medicago arabica</i>	0.67%

Timothy	1	36	<i>Phleum pratense</i>	0.00%
White clover	51	37	<i>Trifolium repens</i>	22.33%
Wild carrot	4	38	<i>Daucus carota</i>	1.67%
Wild cherry	2	39	<i>Prunus avium</i>	0.00%
Wood avens	2	40	<i>Geum urbanum</i>	0.00%
Yorkshire fog	1	41	<i>Holcus lanatus</i>	0.00%
<b>Grand total</b>	<b>260</b>	<b>39</b>		<b>1</b>

Other non-plant species	Latin names
Common carder bee	<i>Bombus pascuorum</i>
Honeybee	<i>Apis mellifera</i>
Buff-tailed bumblebee	<i>Bombus terrestris</i>
Gatekeeper butterfly	<i>Pyronia tithonus</i>
Large white butterfly	<i>Pieris brassicae</i>
Common blue butterfly	<i>Polyommatus icarus</i>
Comma butterfly	<i>Polygonia c-album</i>



RNR, and this site had 10 quadrats. In terms of the habitat conditions, Waveney Road RNR is one of the better sites in terms of the diversity of plant species. It is also one of the sites that has less than 50% grass cover; therefore, other species benefit from this.

### Management recommendations

We recommend having a cut and collect once a year in September to allow for wildflowers to flower and set seed. In addition to the Annual cut and collect, a buffer of 1m along the pathway could be introduced, that is cut more regularly, though when cut making sure to increase the cutting height of the machinery, this would define the RNR more. Waveney road RNR has a good seed bank and does not need sowing. In addition, monitoring of the more scrub areas would need to be managed by scalloping different sections to control the spread of bramble. Also, other recommendations would be the expansion of the RNR south through the roadside verges, Waveney road, to improve connectivity with Darenth Avenue. RNR would benefit both sites as it allows species to migrate to different sites more easily. If the expansion is not possible, then reducing the cutting regime of the surrounds grassland and increasing the cutting height of the machinery would still improve the biodiversity and connectivity of the site. In addition to the habitat management recommendations, we would suggest signage to inform the public of the roadside nature reserves.

### Survey recommendations

- Bumblebee Surveys (Beewalk, Once a month between March and September)
- Wildflower Surveys (3 times a year, early (April-May), middle (June-July) and late (August-September))
- Butterfly transects (UKBMS, Weekly 1st April and 29th September)

These three surveys will help monitor the health of site over the year and identify new species for the sites. These surveys can be carried out by Medway Valley Countryside Partnership

Plant list	Number of times Plant species have been recorded	Number of plant species	Latin names	Average of Percentage cover
Autumn hawkbit	4	1	<i>Scorzoneroides autumnalis</i>	0.42%
Bare ground	19	2	N/A	8.42%
Bluebell	2	3	<i>Hyacinthoides non-scripta</i>	0.08%
Bramble	8	4	<i>Rubus fruticosus</i>	1.83%

Bristly oxtongue	2	5	<i>Helminthotheca echioides</i>	0.25%
Cleavers	5	6	<i>Galium aparine</i>	0.50%
Common cat's ear	2	7	<i>Hypochaeris radicata</i>	0.08%
Common mallow	3	8	<i>Malva sylvestris</i>	1.67%
Common storksbill	1	9	<i>Erodium cicutarium</i>	0.00%
Cow parsley	8	10	<i>Anthriscus sylvestris</i>	1.25%
Creeping buttercup	6	11	<i>Ranunculus repens</i>	1.08%
Creeping cinquefoil	6	12	<i>Potentilla reptans</i>	0.67%
Creeping speedwell	3	13	<i>Veronica filiformis</i>	0.42%
Curled dock	6	14	<i>Rumex crispus</i>	1.00%
Cut-leaved crane's-bill	11	15	<i>Geranium dissectum</i>	3.00%
Daisy	7	16	<i>Bellis perennis</i>	0.58%
Dandelion sp.	45	17	<i>Taraxacum officinale</i>	10.50%
Dog rose	2	18	<i>Rosa canina</i>	0.08%
Dove's-foot crane's-bill	2	19	<i>Geranium molle</i>	0.17%
English cinquefoil	16	20	<i>Potentilla anglica</i>	4.75%
Field maple	1	21	<i>Acer campestre</i>	0.17%
Field speedwell	2	22	<i>Veronica persica</i>	0.25%
Garlic mustard	1	23	<i>Alliaria petiolata</i>	0.00%
Germander speedwell	7	24	<i>Veronica chamaedrys</i>	0.75%
Grass sp.	59	25	<i>Poaceae</i>	46.92%
Greater plantain	4	26	<i>Plantago major</i>	0.33%
Ground ivy	2	27	<i>Glechoma hederacea</i>	0.00%
Groundsel	1	28	<i>Senecio vulgaris</i>	0.00%
Hawthorn	1	29	<i>Crataegus monogyna</i>	0.08%
Ivy	3	30	<i>Hedera helix</i>	0.17%
Knapweed	1	31	<i>Centaurea nigra</i>	0.00%
Knot grass	1	32	<i>Polygonum aviculare</i>	0.00%

Lesser celandine	2	33	<i>Ficaria verna</i>	0.17%
Lords and lady's	1	34	<i>Arum maculatum</i>	0.00%
Meadow barely	1	35	<i>Hordeum secalinum</i>	0.00%
Meadow buttercup	2	36	<i>Ranunculus acris</i>	0.08%
Mouse eared chickweed	2	37	<i>Cerastium fontanum</i>	0.08%
Orchard grass	1	38	<i>Dactylis glomerata</i>	0.00%
Ragwort	2	39	<i>Jacobaea vulgaris</i>	0.33%
Red clover	1	40	<i>Trifolium pratense</i>	0.25%
Red deadnettle	1	41	<i>Lamium purpureum</i>	0.00%
Ribwort plantain	4	42	<i>Plantago lanceolata</i>	0.67%
Round-leaved cranesbill	1	43	<i>Geranium rotundifolium</i>	0.00%
Selfheal	6	44	<i>Prunella vulgaris</i>	1.50%
Sessile oak	2	45	<i>Quercus petraea</i>	0.17%
Smooth cats-ear	2	46	<i>Hypochaeris glabra</i>	0.08%
Smooth sow thistle	2	47	<i>Sonchus oleraceus</i>	0.00%
Spear thistle	1	48	<i>Cirsium vulgare</i>	0.00%
Spotted medick	5	49	<i>Medicago arabica</i>	0.92%
Staghorn plantain	1	50	<i>Plantago coronopus</i>	0.00%
Teasel	1	51	<i>Dipsacus fullonum</i>	0.00%
Thyme-leaved speedwell	1	52	<i>Veronica serpyllifolia</i>	0.00%
White clover	25	53	<i>Trifolium repens</i>	6.83%
Wild carrot	4	54	<i>Daucus carota</i>	0.25%
Wild strawberry	3	55	<i>Fragaria vesca</i>	0.33%
Wood avens	10	56	<i>Geum urbanum</i>	2.92%
<b>Grand total</b>	<b>322</b>	<b>54</b>		<b>100%</b>

Other non-plant species	Latin names
Common carder bee	<i>Bombus pascuorum</i>
Red tailed bumblebee	<i>Bombus lapidarius</i>
Large white butterfly	<i>Pieris brassicae</i>
Common Wasp	<i>Vespula vulgaris</i>
Speckled wood butterfly	<i>Pararge aegeria</i>

**Photos of Species found on site**



Above: Red admiral butterfly found at Hazel Shaw

Below: Buff tailed bumblebee worker at Brook Street.



Above: Common Blue butterfly found at Gibson Building

Below: Common Blue butterfly, Meadow brown and Buff tailed bumblebee sharing Knapweed at Basted Mill



Above: Red tailed bumblebee found at Darenth Avenue.

Below Red tailed bumblebee queen and male mating found at Darenth Avenue



## **Management**

For the RNR, there is some management advice that can be applied to most, if not all, the sites. For example, one key way to manage grassland and meadows is to reduce the cutting regime to once a year in September, we do this because it lets all of the wildflowers flower and set seed, it also produces longer grasses, which is a key habitat for small mammals and invertebrates like Harvest mice and Carder bees to nest in. The important part of this is collecting afterwards, which can either be done by a machine or manually by raking it up. This has three main benefits: it allows the seeds to spread over the site, it removes any excess energy/vegetation, reducing the fertility of the soil, therefore improving it for wildflowers, and finally, if collected, it can either be used as hay for livestock or transported to other sites as green hay (if there are enough wildflowers in the hay), or it can be used as habitat piles on-site as compost heaps are great nesting and hibernation habitats for wildlife. However, for this last one, it depends on the site if it can be left on-site.

However, long vegetation can be perceived as messy by the public and may lead to complaints. To combat this, there are a few methods that can reduce the chance of complaints. For example, having clear signage, notifying the public on why the grass is long, and the benefits of having it long. For this, you could include charismatic species that will benefit from the longer grass and more wildflowers, for example, bumblebees are popular with the public and do benefit from more wildflowers. Another way to reduce complaints from the public is to ensure that they have access and that it looks deliberate. One way this can be achieved is by cutting pathways through the RNR, so people can enjoy the meadow and appreciate it. An alternative is to clearly define the RNR's boundaries if the RNR is next to a path, you can add a buffer between the path and the RNR by having more regular cuts on the buffer and leaving the RNR long. This is currently in place though the buffer zone could be increased to a minimum of 1m at a height of 75mm this makes the longer grass and wildflowers of the RNR look deliberate, with a purpose, rather than having no clear boundary, which makes it look like it is just being left and untidy.

In late summer, many sites were drying out, and vegetation was dying back due to the high temperatures and the lack of rain and wet weather. As a result, some sites increase areas of bare ground during the late summer, and having a higher cut on the RNR and the surrounding areas can help with water retention. This also keeps the grassland greener for longer. In addition to water retention, a higher cut of 75mm on the RNRs and surrounding areas can allow low-lying vegetation like Clover, Birds foot trefoil, and Self-heal to still flower, providing a key resource for pollinators.

Most of the sites have good seed banks that don't need further seed sowing; however, some of the sites may require seed sowing. To prep the site for seed sowing, you need to scarify the surface and then sprinkle the seeds on top, and finally stamp them in. Scarifying large areas for seed sowing can be difficult and expensive. An alternative is to create one-meter plots within the site and sow these areas at a higher density as it gets the new species established into a meadow, and with the correct management, they will naturally spread throughout the meadow. In terms of seed mixes, we would suggest the EM3 mix from Emorsgate Seeds (<https://wildseed.co.uk/product/mixtures/complete->

[mixtures/general-purpose-meadow-mixtures/special-general-purpose-meadow-mixture/](#)) as it has a wide variety of wildflowers within the mix, including yellow rattle, which is a key wildflower for meadow improvement as it is semi-parasitic of grasses and can increase herb cover. Seed sowing should be carried out in the autumn, to allow seeds to germinate and develop larger root systems to cope with the droughts in the summer. Also, if sowing yellow rattle, you would need to sow it in the autumn, as it requires six frosts to germinate. If you do sow in the spring, you can put the seeds in the freezer to help them germinate, mimicking frost. An alternative way to increase wildflower species is a method called green haying. Once a wildflower-rich meadow is cut, you can take the hay from that meadow and thinly spread it over the desired area to introduce species from that meadow into the new site. This method also requires bare ground for the seeds to germinate and grow. One option could be to collect green hay from Hayston Country Park, as the meadows there are likely diverse and have a broader array of wildflowers, and they are local to all the Tonbridge sites.

Another improvement to many of the RNR is an expansion of existing RNR or creation of new ones to improve connectivity, for example, a few of the RNRs do not take up the total area of the grassland or road verge or there are green spaces or other RNR locally that, if expanded could link up and create wildlife corridors, a good example of this are the three RNR of, Waveney road Darenth avenue and Shipbourne Road, are very local to each other can could be connected if the RNR were expanded to link these three sites through road side verges. Alternatively, you could change the management of the areas adjacent to the RNRs to improve them for wildlife by changing the cutting regimes to reduce the cutting and allow for wildflowers to flower and set seed. For further information regarding habitat management, plenty of resources are available online, for example, Kent as a pollinator action plan called Kent Plan Bee, which is in collaboration with Bumblebee Conservation Trust and has monitoring and habitat guidelines for pollinators and meadows management (<https://www.kent.gov.uk/environment-waste-and-planning/nature-and-biodiversity/pollinators/kents-plan-bee-pollinator-action-plan>)

## **Surveying**

Surveying will be a key component of monitoring the development of the RNR. In terms of future surveying of the site, we would recommend three sets of wildflower surveys for each site between April and September to get early, mid, and late of the flowering season. In addition to this, two invertebrate surveys would help monitor invertebrate populations. We recommend the following two surveys: the Monthly bee walk survey (<https://beewalk.org.uk/>) from Bumblebee Conservation Trust and the Butterfly transect (<https://ukbms.org/>) from the United Kingdom Butterfly Monitoring Scheme (UKBMS). These surveys require knowledge of the species and could be done by MVCP Staff In 2026.

## **Summary of recommendations**

Recommendations and detail	Basted Mill	Brook Street	Carnation Crescent	Darent Avenue	Gibson Building	Hazel Shaw	Lillieburn	Lime Crescent	River Lawn	Shipbourne Road	Tudeley Lane	Wavene Road	Priority Level
Conduct an annual cut-and-collect in September at all sites.	.	.	.	.	.	.	.	.	.	.	.	.	1
Remove of Himalayan balsam in summer							.						1
Increasing the number of Roadside Nature Reserves within the Borough	.	.	.	.	.	.	.	.	.	.	.	.	1
Increase the cutting height of surrounding grass areas (including buffer zones) to 75mm.	.	.	.	.	.	.	.	.	.	.	.	.	1
Ensure that signage is installed on site to inform residents of the Roadside Nature Reserves	.	.	.	.	.	.	.	.	.	.	.	.	1
Maintain a buffer of at least 1m in width and 75mm in height around the edge of all RNRs to define areas.				.		.		.	.	.		.	1
Monitor suckers of hedges/trees		.			.								1
Where possible, increase size of existing RNRs by 1m	.	.					.		.				2
Seed Sowing EM3 mix (autumn/winter)			.				.				.		2
Seed Sowing (Yellow rattle) (autumn/winter)	.		.				.						2
Scallop the edge of scrubby areas, to control bramble												.	2
Creating a Habitat pile on-site with the cut vegetation	.						.					.	2

Carry out wildflower surveys (3 times a year, early (April-May), middle (June-July) and late (August-September))	•	•	•	•	•	•	•	•	•	•	•	•	•	3
Carry out Bumblebee Surveys (Beewalk, Once a month between March and September)	•	•	•	•	•	•	•	•	•	•	•	•	•	3
Carry out surveys of Butterfly transects (UKBMS, Weekly 1st April and 29th September)	•	•	•	•	•	•	•	•	•	•	•	•	•	3
Green Haying (if possible)	•	•										•		3

**Priority Level (1 = High - 3 = Low)**