

Use of Glyphosate on Hospital Grounds

Reference Number: RDF1124-22

Date of Response: 21/12/2022

Further to your Freedom of Information Act request, please find the Trust's response(s) below:

I am wondering if you could please tell me:

- 1) Why the Trust is using glyphosate at all, whether as a primary or secondary means of weed control or even if only sparingly, when alternative/mechanical methods of weed control are equally as effective and cost efficient but less harmful to biodiversity.

At the Northern area of the Trust, the Estates department do not use glyphosate directly and we have asked our grounds and gardens contractors to look at alternatives and not to use it.

At the Eastern area of the Trust, we have used glyphosate in the past but are looking into effective alternatives.

- 2) Would the Trust consider adopting a more natural aesthetic/less manicured approach towards grounds maintenance e.g., allowing some weed overgrowth on hard surfaces. Yes, for both areas of the Trust. However, the answer would be no to public areas due to Health and Safety risks and implications.

The Northern area of the Trust have implemented several "no mow" areas across the sites, including areas that have been seeded with wildflowers. Next growing season these will be extended.

- 3) What measures is the Trust currently taking to protect biodiversity?

The Trust has signed up to support the North Devon Biosphere pledge to nature, we have numerous no mow areas, habitat piles have been created when tree works have taken place, bird and bat boxes sited around the site.

For the Eastern area, the Wonford site:

- We have engaged with Devon County Council to change the management regime on the verge that borders Wonford hospital to a no mow during the growing season (circa 5,000m²).
- We have planted pollinator friendly bulbs across the Wonford site (circa 50m²),
- We implement no mow areas and wildflower planting (circa 250m²).
- We have planted numerous trees supplied under the NHS Forest scheme.
- Developed a Biodiversity and Outdoor Wellbeing Action Plan that is to be used by operational and capital teams to direct development in this area, this includes guidance on pollinator friendly planting.

Please find attached the Biodiversity and Outdoor Wellbeing Action Plan (BOWAP) that has been circulated to operational G&G teams and Capital teams across both Northern and Eastern regions for guidance in this area.

Biodiversity and pollinator-friendly planting list v1

Basic principles for planting:

This is not an exhaustive nor prescriptive list of plants that would be suitable for a biodiverse site. However, there are some principles that can help assess the suitability of different plants for use across sites that balance the need for amenity as well as biodiversity:

- **Not necessarily native** – Many non-native species still provide a rich nectar source for pollinators as well as providing colour, typically a longer flowering period – and more robust in urban localle.
- **All year round** – Consider a mix of species that flower or provide colour across the full year, both for biodiversity and aesthetics.
- **Create clusters of the same plant** – clusters of plants in a small space can provide more nectar for pollinators.
- **Consider amenity** – Choose plants that will be suitable for the site maintenance regime / use – avoid fast-growing Bamboo or species that will out-compete and create a ‘dead-zone’ of biodiversity.
- **Consider safety** – avoid plants which may have a toxicity concern e.g. if ingested.

Resources:

Royal Horticultural Society Plants for Pollinators: <https://www.rhs.org.uk/science/pdf/conservation-and-biodiversity/wildlife/plants-for-pollinators-garden-plants.pdf>

Buglife – Managing Urban Areas for Pollinators: <https://cdn.buglife.org.uk/2019/07/managing-urban-areas-for-pollinators.pdf>

NHS Forest - Pollinator-friendly Planting: <https://nhsforest.org/green-your-site/bee-and-pollinator-friendly-planting/>

Note: flowering times/ height / spread are given as an indication only; results will vary depending on conditions at each planting location.

Planting List Draft

Shrubs					
Name	Height/ Spread	Habit	Foliage	Flowering Season / colour	Notes on biodiversity (good for pollinators/foraging etc.)
Hebe 'Burning Heart'	60 x 60cm	Compact neat shrub.	Evergreen. Mid-Green – with bright pink edge.	July- Aug. Multiple lancets of pink/purple flower.	Pollinators.
Ceanothus 'Concha'	3m x 3m	Dense, bushy shrub	Evergreen. Dark green.	April-June. Masses Royal blue flower clusters.	Pollinators.
Escallonia 'Apple Blossom'	2.5m x 2.5m	Dense, bushy shrub.	Evergreen. Dark green.	June -October. Masses of small pink tubular flowers.	Pollinators.
Ceanothus 'Autumnal Blue'	3m x 3m	Loose multi-stem shrub	Evergreen. Dark green.	Aug to Oct. Colour: Masses Royal Blue flower clusters.	Pollinators.
Hebe 'Champagne'	60 x 60cm	Compact neat shrub	Evergreen. Mid-green foliage.	June – October. Multiple lancets with pink tinge fading to white.	Pollinators.
Hebe 'Heartbreaker'	60 x 60cm	Compact neat shrub	Bright pink and cream foliage.	June – October. Multiple lancets of lilac/purple.	Pollinators.
Hebe Blush Elegance ('lowgeko')	1.8m x 1.8m	Dense, bushy shrub	Evergreen. Dark green.	July-October. Multiple lancets of blush pink.	Pollinators.
Hebe Margret (or Hebe 'Garden Beauty Blue')	0.7m x 0.7m	Dense, compact multi stem shrub.	Evergreen. Dark green.	Margret: Pale Purple lancet flowers - June – October. Beauty Blue: Deep blue lancet flowers June to October.	Pollinators.
Cytisus scoparius (Broom)	1.5m x 1.5m	Upright dense shrub.	Evergreen. Dark green foliage.	April- June. Multiple small bright yellow flower	Native. Pollinators. Good for cover.

Note: flowering times/ height / spread are given as an indication only; results will vary depending on conditions at each planting location.

Cytisus 'Boskoop Ruby' (Broom)	1.5m x 1.5m	Upright dense shrub.	Evergreen. Dark green foliage.	April- June. Multiple small bright pink flower. Option for alternative flower colour – apricot: Alternative flower – Apricot colour use: 'Cytisus 'Apricot Gem'	Non-native – ideal companion planted with native form above. Good for cover.
Viburnum × bodnantense 'Dawn'	2m – 1.5m	Loose multi-stem shrub	Deciduous. Autumn colour.	November – March. Multiple small bright pink flowers on bare-stems.	Early pollinators.
Amelanchier lamarckii	8m x 4m	Large multi stem shrub/dwarf tree	Deciduous. Autumn colour.	March – April. Multiple small white flowers.	Pollinators. Red berries in late summer birds love.
Daphne ' External Fragrance'	1m x 1m.	Dense, bushy shrub.	Semi- Evergreen (i.e. evergreen apart from harsh winters). Dark green foliage.	May-October. Highly Scented. Multiple small white flower – highly scented.	Pollinators. Wonderful shrub with summer long scent and berries for birds – BUT berries toxic if ingested – and sap can cause skin irritation when pruned. Hence, plant at the back of a border.
Guelder Rose	5m x 3m	Large multi stem shrub/dwarf tree	Deciduous. Dark Green. Autumn colour.	May-June. Multiple white pink tinged rosettes.	Pollinators. Berries for birds (mildly toxic to human if large quantities ingested). Native. Good for cover and nesting when mature.
Fuchsia (Lady Boothby)	1m x 2.5m	Large multi stem shrub.	Deciduous. Mid-green foliage.	June- October. Masses of red trumpet flowers.	Pollinators. Good for cover and nesting when mature.
Sarcococca confusa (Sweet Box)	1.5m x 1.5m	Large multi stem shrub.	Evergreen. Dark green foliage.	January- March. Tiny white trumpet flowers with mild scent.	Early Pollinators.
Sambucus Nigra Black Beauty Black Elder	4m x 3m	Large multi stem shrub/dwarf tree	Deciduous. Dark black / purple foliage	June – July. Multiple pink tinged flower rosettes.	Pollinators. Berries late summer birds - BUT berries toxic if ingested.

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Oregon Grape (Mahonia)	1m x 1m	Dense, bushy shrub.	Evergreen. Dark green foliage.	March- May. Multiple Yellow lancet flowers.	Early Pollinators. Berries in late summer birds love (mildly toxic to human if large quantities ingested). Suckering habit once mature – can be dug to provide new plants.
Wayfaring tree	5 m x 3m	Large multi stem shrub/dwarf tree	Deciduous. Autumn colour.	May-June. Multiple white pink tinged rosettes	Pollinators. Berries for birds (mildly toxic to human if large quantities ingested). Native. Good for cover and nesting when mature.
Barberis Darwinni	1.5m x 2m	Dense, bushy shrub.	Evergreen. Dark green foliage.	April-May. Masses of tiny orange/ yellow bell shaped flowers.	Early Pollinators. Berries in late summer birds love (mildly toxic to human if large quantities ingested). Good for nesting when mature.

Evergreen Border Plants

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Name	Height/ Spread	Habit	Foliage	Flowering Season / Colour	Notes on biodiversity (good for pollinators/foraging etc.)
Erica carnea 'Pink Spangles' (Winter heather)	0.2 – 0.3m	Dense, compact habit	Evergreen. Dark green.	Feb-May. Pale pink flower on erect stems.	Pollinators. Mix with alternative winter heathers for variety of flower/ foliage colour – most pollinator friendly.
Rosmarinus officianilis Prostratus (Creeping Rosemary).	0.3m x 1m	Dense, prostrate/ trailing habit	Evergreen. Mid-Green. Aromatic.	May/June. Masses tiny purple flower. Aromatic.	Ideal trailing over walls. Sheltered sunny spot. Pollinators.
Alpine Sempervirens ' Fishenbeck' (Iberis)	0.2 x 0.6m	Dense, mat forming habit	Evergreen. Dark green.	March – June. Flowers tiny white clusters rise from foliage mat on erect stems (10cm).	Ideal trailing over walls/ rock gardens. Pollinators. Many alpine pollinator friendly to create mix on wall or gravel gardens.
Christmas Rose (Helleborus viridis).	0.3 – 0.3m	Compact multi stem plant.	Semi-evergreen. Dark green.	December – March. Large green flower cups.	Native form. There are many hybrid varieties for alternative flower colour – most pollinator friendly.
Lavender Angustifolia Hidcote.	0.6 x 0.6m	Multi stem woody plant.	Evergreen. Silver Grey. Aromatic	June- Sept. Flowers purple scented erect stem flower clusters.	Pollinators. Sheltered sunny spot. Most lavenders pollinator friendly.
Hebe Carl Teschner (dwarf shrub).	0.4 x 0.5m	Compact multi stem woody plant.	Evergreen. Dark green.	June-July. Flowers white/purple erect stem flower clusters.	Pollinators. Sheltered sunny spot.
Erysimum 'Bowles's Mauve'	0.5 x .04m	Compact multi stem woody plant.	Evergreen. Silver Grey.	April- October. Flowers purple on erect stem flower clusters.	Pollinators.
Bunny's ears (Stachys Byzantine)	0.2 x 0.3m	Dense, compact habit	Evergreen. Silver Grey – pubescent.	June-July. Flowers purple on erect stem flower clusters.	Pollinators.

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Common Bilberry (<i>Vaccinium myrtillus</i>).	0.2 x 0.3m	Dense, compact habit	Evergreen. Dark green.	May- June. Pink small bell shaped.	Native form. Pollinators. Berries in late summer birds love.
Climbing / Rambling plants					
Clematis 'Winter Freckles'	Height 2.5m	Rambling.	Evergreen. Mid Green.	October- March. Flowers pink freckled open bells.	Early pollinators.
Jasminum 'Nudiflorum'	Height 2.5m	Rambling.	Evergreen.	October- March. Flowers clusters – yellow.	Early pollinators.
Jasminum 'Clotted Cream'.	Height 2.5m	Rambling.	Semi-evergreen. Mid-green.	June- Sept. Flowers cream clusters – scented.	Pollinators.
Ivy. <i>Hedera Helix</i>	Height up to 5m	Rambling	Evergreen. Dark green.	September- November. Flowers small green rosettes.	Rich nectar source for late pollinators and winter berries (mildly toxic to human if large quantities ingested). Good for cover and nesting when mature.
Lonicera 'Graham Thomas' (Honeysuckle)	Height up to 5m	Rambling	Deciduous. Dark Green.	June- Sept. Flowers yellow clusters – highly scented.	Pollinators. Native form (also <i>Lonicera periclymenum</i>). Many hybrid honeysuckle forms most pollinator friendly. Good for cover and nesting when mature.
Rosa 'Kiftsgate'	Height up to 12 m	Very vigorous Rambling.	Evergreen. Dark green. Thorns.	June-July. Masses open small white rose heads.	Pollinators. Hips in late summer birds love (mildly toxic to human if large quantities ingested). Good for cover and nesting when mature.
Rosa 'Seagull'	Height up to 6m	Vigorous rambling.	Evergreen. Dark green. Thorns.	June-July. Masses open small white/pale yellow rose heads.	Pollinators. Hips in late summer birds love (mildly toxic to human if large

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					quantities ingested). Good for cover and nesting when mature.
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Hedges/Trees					
Name	Height/ Spread	Foliage	Habit	Flowering Season / Colour	Notes on biodiversity (good for pollinators/foraging etc.)
Rosa rubiginosa (Sweet Briar)	2.5 x 2.5m	Deciduous. Dark Green.	Open stems branching shrub – cut to hedge form. Thorns.	June-July. Pale pink single rose heads.	Pollinators. Hips in late summer birds love (mildly toxic to human if large quantities ingested). Good for cover and nesting when mature.
Rosa Rugosa	2.5 x 2.5m	Semi- evergreen. Mid-green.	Dense stems branching shrub – cut to hedge form. Thorns.	June-August. Bright pink single rose heads (white forms also available).	Pollinators. Large hips in late summer birds love (mildly toxic to human if large quantities ingested).. Good for foraging/cover and nesting when mature. BUT hips toxic if ingested.
Euonymus europaeus (spindle)	2.5 x 2.5m	Deciduous. Mid-Green.	Open branching woody shrub / tree – cut to hedge form	May-June. White flower clusters.	Pollinators. Berries in late summer birds love – particularly Robins. Good for foraging/cover and nesting when mature. BUT berries toxic if ingested.
<i>Elderflower</i> (Sambucus nigra).	5m x 5m	Deciduous. Mid-Green.	Open branching shrub / tree – cut to hedge form.	May-June. Masses white flower clusters.	Pollinators. Berries in late summer birds love. Good for foraging/cover and nesting when mature.

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<i>Native hedging mixes</i>	Up to 5m > x 1.5m	Deciduous. Mix Green.	Open branching shrub – cut to hedge form.	May – June. White/pink flower clusters.	Buy native mixes to provide food for caterpillars/larvae for moths and butterflies: Hawthorn, Hornbeam, Hazel, Dogwood, Wild plum, Wild Pear, Bird cherry, Crab apple.
<i>Ilex Aquifolium (Holly) 'JC Van Tol'.</i>	4m x 4m	Evergreen. Dark green.	Large multi stem shrub/dwarf tree	May / June. Small white clusters.	Pollinators. Berries in late summer birds love. Good for cover and nesting when mature. This is a heavily berried form – which is self fertile.
<i>Yew (Taxus baccata).</i>	Up to 15m >	Evergreen. Dark Green.	Dense thick hedge / tree – faster growing in first 4 years then slow.	May / June. Tiny white clusters (often unseen).	Native form. Pollinators. Berries in late summer birds love. Good for cover and nesting when mature. BUT berries toxic if ingested.
Escallonia 'Apple Blossom'	2.5m x 2.5m	Evergreen. Dark Green	Evergreen (unless severe winter). Dense bushy shrub – cuts well into hedge form.	June - September. Masses of small pink tubular flowers.	Pollinators.
Crab Apple 'Red Sentinel'	Up to 6-8m (depends on root stock – dwarf forms available).	Deciduous. Mid-Green.	Urban Tree.	May. Masses pink flower clusters	Pollinators. Small crab apples in late summer – which do not drop – birds eat in winter after frost (good winter food). Good for nesting when mature.
Midland Hawthorn (<i>Crataegus laevigata</i>). Hybrid varieties include 'Pauls Scarlet' – smaller/compact growth tree up to 10m	Up to 8m.	Deciduous. Mid-Green	Urban Tree.	May. Masses pink flower clusters.	Native form. Pollinators. Berries in late summer birds love. Good for cover and nesting when mature.
Rowan (<i>Sorbus aucuparia</i>). Hybrid varieties include 'Sheerwater Seedling' –	Up to 15m	Deciduous. Mid-Green	Urban Tree.	May. Clusters small white flowers.	Native form. Pollinators. Berries in late summer birds love. Good for cover and nesting when mature.

Note: flowering times/ height / spread are given as an indication only; results will vary depending on conditions at each planting location.

smaller/compact growth tree up to 10m.					
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BIODIVERSITY AND OUTDOOR WELLBEING ACTION PLAN

2022 - 2024



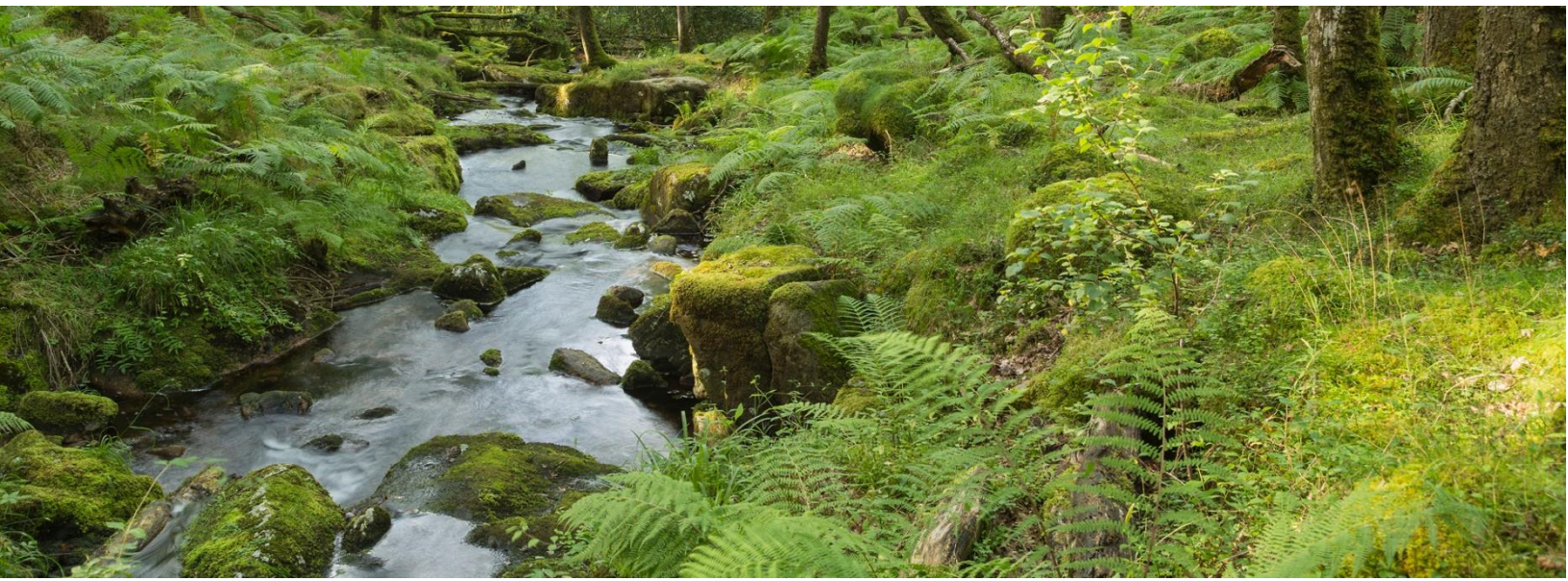
Foreword

Protecting, enhancing and celebrating the biodiversity within our estate has never been more vital to the Trust's core vision. In the shadow of the Covid-19 Pandemic, the value of green space has become ever more paramount in maintaining both mental and physical health.

As an organisation that is focused on maintaining healthy people, the nourishment and healing of the environment around us fits into the ethos of healthy people. Physical inactivity is estimated to have cost NHS England £18.17 per person per year in 2010-2011 (Public Health England 2016)¹.

As stewards of the Trust land, we have a moral and statutory duty to extend our estate management further than simply providing a functional premise for patient care. We must develop an institution which cherishes and supports our local wildlife and green space in order to optimise the therapeutic value our estate.

This action plan has been developed with the assistance of the Royal Society for Protection of Birds; together we can protect and improve the diversity of flora and fauna - to benefit wildlife but also provides a vital environmental and healthy lifestyle link between stakeholders of Trust services and the richly diverse countryside of Devon.



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1. Introduction

“Human activities are changing and destroying habitats, natural ecosystems and landscapes on an increasing scale. This has led to a demonstrable rise in the level of concern amongst scientists and the wider public who recognise that biodiversity must be treated more seriously as a global resource to be protected and conserved....”.

UK Biodiversity Action Plan 1994

What is Biodiversity?

Biodiversity can be defined as the variety of plants, insects, birds and animals which inhabit the grounds and gardens within the Trust estate. It is important to protect and improve biodiversity in order to retain enough variety and quality of habitat to allow local ecosystems to flourish; also, to be robust enough to withstand human and environmental impacts.

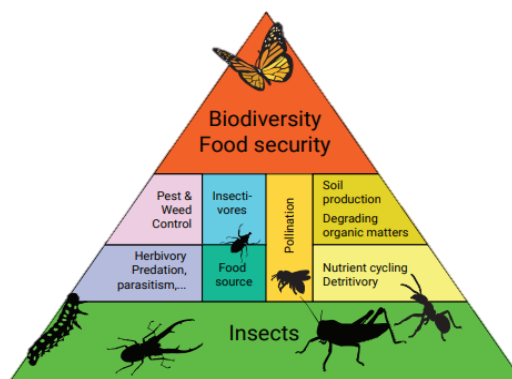
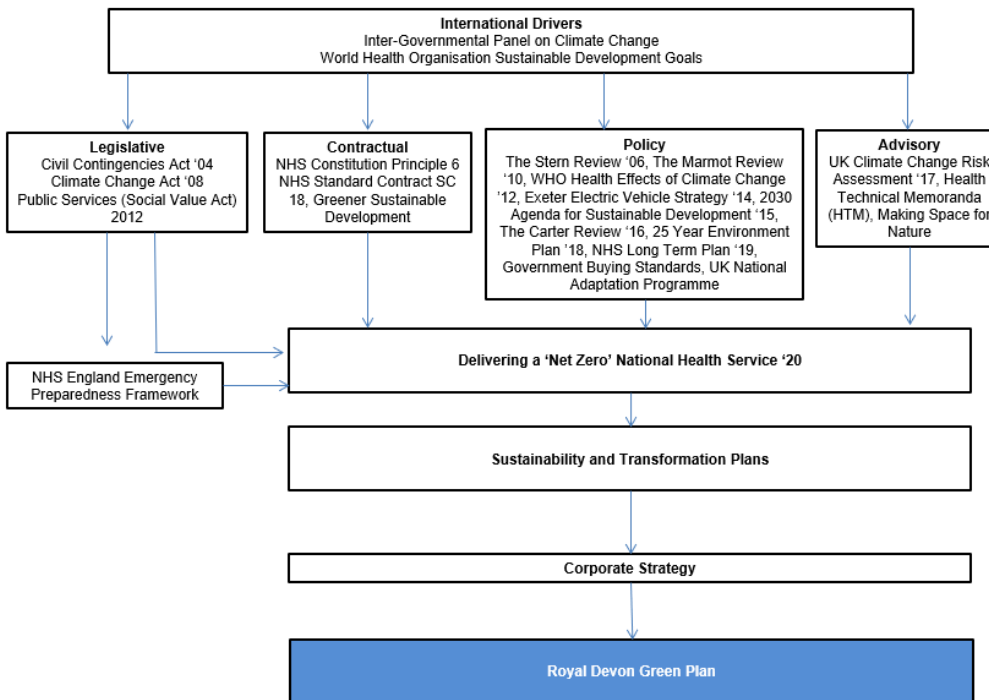


Figure 1. Biodiversity and Food Security Pyramid. Reproduced from: 'We are losing the little things that run the world' UN Environment Foresight Briefing 2019²

The Trust has an estate which ranges across Devon and operates within a large variety of buildings and landscapes. This Biodiversity and Outdoor Wellbeing Action plan (BOWAP) provides a programme of action for maintaining the grounds to encourage and conserve wildlife; whilst also optimising amenity and therapeutic value. This document also sets out how we can start to play our part in building a “coherent and resilient ecological network” for Devon; this is a long-term goal within all regions of the UK. This goal forms part of the wider UK Biodiversity Strategy: Biodiversity 2020³ and is a requirement for all Government Bodies.

2. Drivers for Change



The UK Governments strategy for England’s wildlife and ecosystem services, called ‘UK Biodiversity 2020’ states its goal to:

“Halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people”.

Furthermore, the ‘NHS England Sustainable Development Management Plan 2018-2020’⁴ embraced the UN Sustainable Development goals, including the need for ‘*sustainable cities and communities*’. The Plan focuses across a raft of sustainability themes including biodiversity and health – taking action to ‘*positively benefit the wider community*’ whilst acting as a ‘*socially responsible employer*’. The ethos of Trust’s Biodiversity plan cuts across all these themes and provides the opportunity to fully embrace these aspirations.



3. First Phase 2021 – 2024

This is Trust's first BOWAP, and as such these first-phase goals are set with a view to establishing a new way of thinking, and providing a springboard for a future when amenity, biodiversity and habitat become a central part of our role as responsible estate managers.

As part of the longer-term review of the Trust estate, there will be a focus on gradually and systematically developing new management protocols which will support the broader BOWAP objectives. These will be adapted to take into consideration site specific details, such as requirements of secure mental health units, the type of patients likely to be using sites, and how to optimise outcomes for all stakeholders.

In order to pilot and establish this approach, this first phase BOWAP is focused principally on the site at Wonford. To this end the Trust has agreed with the Board, the scope of general goals as set out below. The programme of goals will broadly capture best practice as described in the document 'Green Space Design for Health and Wellbeing (Forestry Commission 2012)⁵, which provides a blueprint for the design considerations, layout and features of green spaces for health.



4. Vision, Aims and Objectives

Outside spaces that maximise the Trust's contribution to health, wellbeing and nature.

Aim of the Biodiversity and Outdoor Wellbeing Action Plan

To improve the biodiversity and amenity value of the Trust Estate. We will do this by providing good quality green space that: maximises our contribution to health and wellbeing, is safe and clean and includes the presence of floral and wildlife interest. This will benefit patients, staff, carers, volunteers, visitors and our local and wider community.

We will:

- 1. Foster stakeholder engagement**
- 2. Enhance existing landscaping, tree, hedge, floral and shrub planting**
- 3. Review new developments and renovations**
- 4. Encourage use of grounds for physical & mental health, inspiring links with nature**
- 5. Enhance courtyard management and use**
- 6. Manage a welcoming, clean, sustainable and safe site for all**



Objective 1): Foster stakeholder engagement: Internally and externally, pro-actively seek engagement with health, community and conservation stakeholders.

This objective aims to tap into a local resource of assistance and guidance, and harness existing enthusiasm amongst staff. The challenge is to provide an open but productive dialogue to translate enthusiasm into tangible outcomes that meet stakeholder needs. We will foster new and existing links to ensure stakeholder needs are met, best practice is followed and resources are maximised through: economies of scale, minimising duplication and identifying funding opportunities. This will involve engaging with internal staff groups, health charities, local groups focused on active lifestyles, conservation charities and our neighbours e.g. local NHS Trusts, neighbourhood groups, and other large institutions.

Example organisations we will engage with on our biodiversity goals are: Hospiscare, Alzheimer’s UK, Mind, Active Devon, Sustrans, RSPB, Devon Wildlife Trust, University of Exeter, Devon County Council, Exeter City Futures, North Devon Biosphere and Exeter City Council.

We will also investigate inclusion of art installations to celebrate biodiversity, via links with local artists.

	Goals
1a	Link with 2 conservation charities.
1b	Link with 2 health charities
1c	Link with Green Teams
1d	Establish art installation celebrating biodiversity
1e	Link with two local active lifestyle and/or neighbourhood groups
1f	Link with University of Exeter and Local Authorities with responsibility for local verges and adjacent green spaces



Objective 2): Enhance existing landscaping, tree and hedges, shrub and floral planting:

Assess existing planting and landscape features to optimise habitat and amenity value including: visual and noise screening, shading, and security. Develop optimum planting guides/species list for future schemes, support native planting where practical. Evaluate and remove plants with toxicity concerns and low habitat value.

The Trust is custodian to many mature trees, hedges and mature shrubs. In addition to habitat and food sources these provide services such as visual screening, amenity and shade, noise reduction, security, mitigation of surface water flooding and air pollution. A planting list will be developed for each site, considering landscaping and existing stock. Further planting should focus on providing a source of nectar and food for pollinators and birds. Habitat should be enhanced, e.g. use of bird boxes. Hedges managed to optimise opportunity for bird nesting and food, new planting to provide year-round biodiversity interest, e.g. alongside walking trails. The planting list will be the principle list of species to be considered in any maintenance and new development planting.

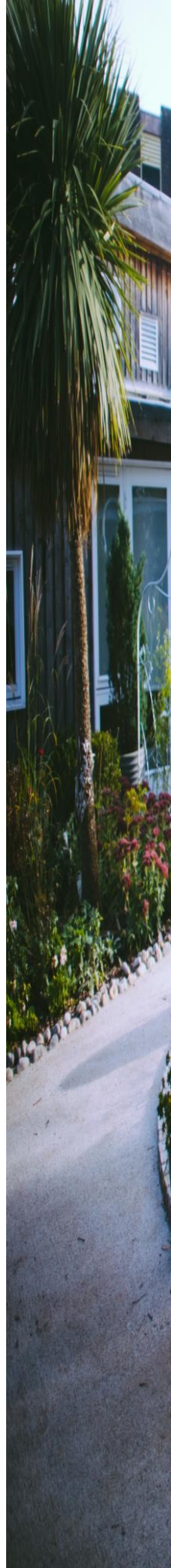
Number	Goals
2a	Develop list of preferred trees, hedge, shrub and floral varieties – listing ‘services’ e.g. shading and air pollution control to optimise where necessary.
2b	Audit and review location/ management of existing hedges and trees on each site, aim to optimise habitat and food value.
2c	Review potential new sites for tree/hedge planting
2d	Audit and review location/ management of existing shrubs and flower beds on each site, seek to optimise habitat and food value e.g. nectar.
2e	Remove ‘low value’ or toxic flora and replant adopting new planting guides.
2f	Establish target for increasing/maintaining green areas/tree numbers



Objective 3) Review new developments and renovations: *Work with stakeholders to ensure new developments augment site-wide amenity and biodiversity goals.*

Currently new developments on site are put forward using recommended planting schemes from contractors and/or Landscape Architects. We will engage with this process and provide a framework for ensuring ongoing maintenance operations and new developments complement and enhance the objectives within this BOWAP (see objective 2), as well as consulting on proposed plans. These aspirations will broadly capture best practice as described in the document 'Green Space Design for Health and Wellbeing (Forestry Commission 2012)⁵, which provides a blueprint for the design considerations, layout and features of green spaces for health.

Number	Goals
3a	Work with Landscape architects to influence new Bereavement Garden design
3b	Engage with development of design for new garden at the RILD Centre
3c	Promote planting guides etc to Estates Officers, Capital Team and preferred contractors



Objective 4): Encourage use of grounds for physical fitness and mental health

benefits to inspire links with nature: Provision of green gyms, walking and jogging/cycling trails seeking to motivate therapeutic use of outdoor space, increase provision of accessible sensory and tranquil spaces and/or gardens and trails, link habitats together to create and enhance local wildlife corridors.

The Trust's grounds are under-utilised currently for amenity value, we need to review how we can encourage staff, patients and visitors to better use the various parts of the site, particularly with a view to providing quick and easy opportunities for exercise. Fitness trails can be a useful addition, and also foster enthusiasm and ownership to encourage engagement in further estate improvements. The use of outdoor space for therapeutic purposes could also add value e.g. Occupational Therapy, Physiotherapy.

There are also clear mental health benefits, e.g. stress reduction, through provision of a tranquil or sensory rich space. The selection of parts of the site which focus on a 'quiet space' with seating and providing opportunities to sit and relax is a critical part of the estate amenity use. Encouraging wildlife, such as bird song and nesting, has also been shown to enhance the mental health benefits. We will ear-mark areas onsite to capture these benefits, and provide sensory and nectar rich floral planting within.

Number	Goals
4a	Survey sites and explore options for Green gym and trails
4b	Work with staff and local community to evaluate options
4c	Set out planting plan for new Bereavement garden
4d	Identify sites to be developed for use as tranquil spaces and for whom (e.g. staff only spaces)
4e	Install nest boxes within tranquil spaces



Objective 5): Enhance courtyard management and use: Review Wonford Hospital courtyards to optimise safety and engage with stakeholders to increase amenity use and habitat value.

The Wonford Hospital site has a network of courtyards and enclosed outside areas. Most have had limited input to develop the amenity use historically, this brings challenges in respect to proximity to confidential patient areas and potential hazards. Some courtyards have been successfully developed working with staff and patient groups, the learning points can be harnessed to progress this success to further areas. These spaces could be utilised in a variety of positive ways, e.g. tranquil space, allotments, or mental health therapy such as art projects and activity/therapy spaces e.g. with green gym equipment (supporting Objective 4).

Number	Goals
5a	Survey all Courtyards for amenity suitability and safety.
5b	Review existing successes and develop new sites with Stakeholders



Objective 6) Manage a welcoming, clean, sustainable and safe site for all: *Develop new grounds management protocols to enhance habitat value and embrace the spirit of environmental legislation to maximise sustainable practices. Improve accessibility, conservation signage and litter controls.*

We will commence a review of estate management to integrate and compliment the above objectives. Each site will have its own management protocols; managing each estate sensitively rather than one size fits all. To optimise the habitat, biodiversity and amenity value requires grounds to have a variety of structure and height in planting, as greater variety supports more ecological niches. Whilst most areas are cut regularly for practical purposes, some areas could be left to grow long; longer grass can create interest and biodiversity value, depending on amenity use.

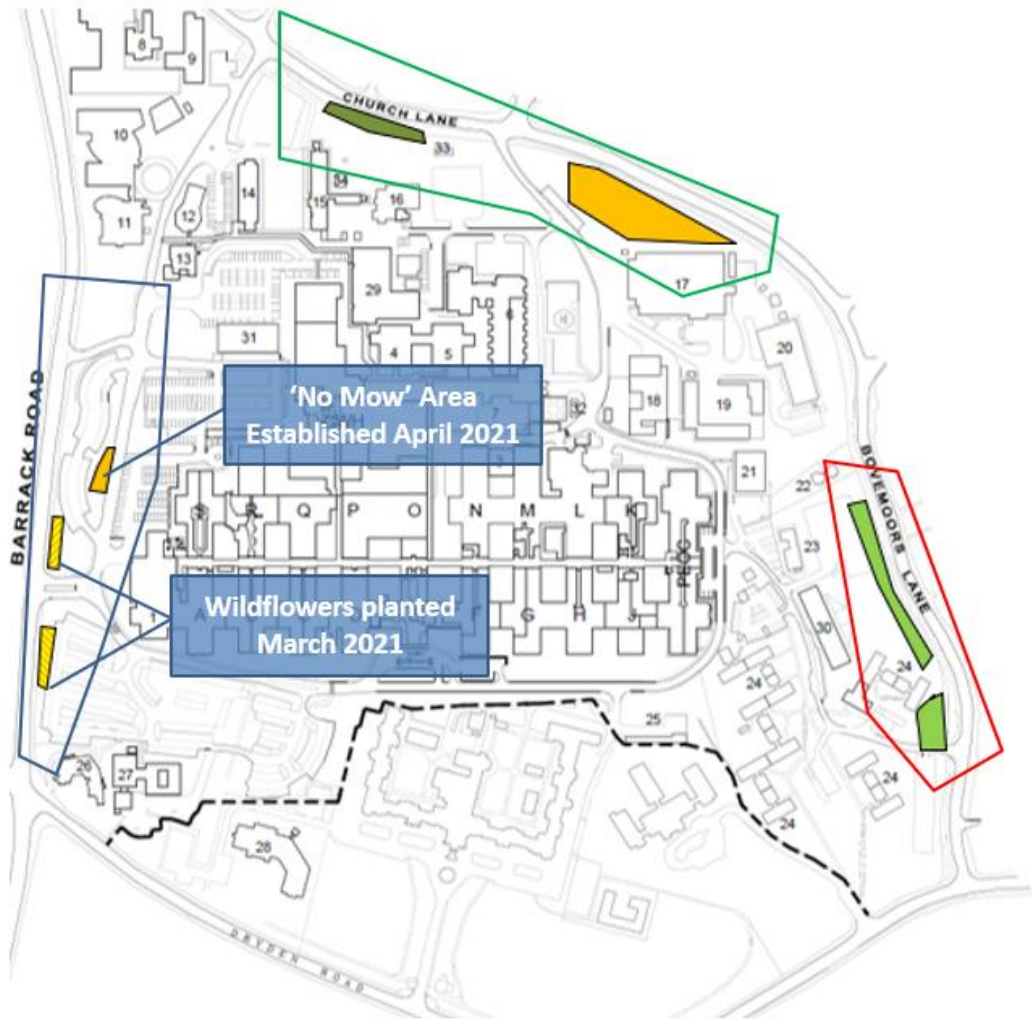
Hedges should not be cut too early as the nuts and berries need to remain into the winter to provide benefits from the food and cover, and with nesting times avoided. Conservation signage can help to develop understanding and avoid criticism about lawns not being mown and changes to hedge cutting, although 'lighter- touch' grass management is becoming more main-stream as Local Authorities are adopting these practices more widely. Reduction in use of chemicals is also an important aspect to supporting a robust ecology on site.

Number	Goals
6a	Compost 90% green waste? Making mulch with larger clippings?
6b	Minimise use of pesticides/herbicides.
6c	Review estate management protocols and develop action plans for each site
6d	Review amenity use of grassed areas and change mowing regimes where possible
6c	Add conservation signage to encourage stakeholder buy-in



5. Wildflower Wonford

An initial plan for increasing biodiversity and providing outdoor fitness stations at Wonford has been created and a wildflower trial implemented. The plan has a phased approach and indicative budget costs. An indicative cost plan is included in Appendix 1.



Costings per phase:

Phase	Breakdown	Cost	Completion date
Phase 1: Barrack Road Corridor	Approx. 120m ² for wildflowers: £3000 - complete Cost of Daffodil Bulbs: 100 distributed at above locations - £48 'No Mow Area' Established at 'Snake' Car park – no upfront costs for creation	£3050	Completed
Phase 2: Church Lane and Laundry	Church Lane patch: Laundry patch: Approx 300m ² for “no-mow” Cost of Daffodils and Snowdrop bulbs: 20m ² distributed at above locations - £340	£340 (unfunded)	March 2023
Phase 3: Residencies and wild areas	Cost of Daffodils and Snowdrop bulbs: 20m ² distributed at above locations - £340	£340 (unfunded)	September 2023
TOTAL		£3,730	

Budgetary Costings for Outdoor Gym Equipment, will also require benches, bins etc

Equipment Type	Cost per unit
Step-up sleepers	£180
Step-up logs (3 of varying height)	£260 for 3
Hamstring Stretch Posts	£100 for a pair
Leg stretch/bar push ups	£200
Inclined multi-exercise bench	£400
Set of 3 balance beams	£500
Body raise/Reverse Pull Ups unit	£250
Installation cost	TBC est. £2,500
Total	£4,390



6. Biodiverse Barnstaple

In 2021, North Devon District Hospital (NDDH) worked in collaboration with the North Devon Biosphere and Devon Wildlife Trust to produce an area of nature regeneration on the site. This included sowing the ground with Yellow Rattle to encourage a greater diversity of plants through suppressing grasses as well as the creation of a pond area through a “Biodiversity Boost” event where staff and visitors were encouraged to join in the creation of these areas.

Spring 2022 saw the germination and the growth of Yellow Rattle and we intend to look at further ways to enhance this area for the benefit of biodiversity and human wellbeing, using the principles set out in this document.



Yellow Rattle seedling appearing through the grass sward at NDDH



7. Closing Remarks

This Biodiversity & Outdoor Wellbeing Action Plan provides the Trust with an opportunity to protect and improve the quality of flora and fauna within the area it operates, and play our part in the protection of the richly diverse countryside of Devon.

We can improve patient outcomes, significantly enhance local health and well-being, foster valuable links between stakeholders and assist wildlife - to the benefit of all.

Thank you to the Royal Society for the Protection of Birds for assistance in developing this document.



8. Contact Us

Inclusion and collaboration are key to the Trust's continual success. Your views are welcome on how we can continually improve.

Please send any comments, ideas, suggestions or feedback you may have to:



rde-tr.sustainability@nhs.net



@GreenRoyalDevon



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9. References

1. **Physical inactivity: economic costs to NHS clinical commissioning groups** (2016). Public Health England
2. **UN Environment Foresight Brief, Issue 011, “We are losing the little things that run the world”**, January 2019. Last accessed 14/06/2021 here:
https://wedocs.unep.org/bitstream/handle/20.500.11822/27255/Foresight_Brief_No_011.pdf?sequence=1&isAllowed=y
3. **Biodiversity 2020: A strategy for England’s wildlife and ecosystem services**, DEFRA, 2011. Last accessed 14/06/2021 here:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf
4. **NHS Sustainable Development Management Plan for England (2018-2020)**. NHS England.
5. **Green Space Design for Health and Wellbeing (2012)**; Forestry Commission and NHS Forest, Edinburgh.

10. Appendices

Appendix 1: Wildflower Costings

Costing type	Breakdown	£ per m ²
Wildflower Planting	Seed cost: 1kg seed - £90 - 75p per m ² Turf Cutting – £21 per m ² Yellow Rattle seeding – 40p per m ² 10% margin for price/labour changes	£25
Bulb planting	50 x Daffodils per m ² 75 x Snowdrops per m ² Estimated planting needed: 1000 of each for 50m ² Daffodils: ~£395 per 1000 Snowdrops: ~£330 per 1000 £7.90 of Daffodils per m ² £6.60 of Snowdrops per m ² 10% margin for price/labour changes	£17 per m²
Signage Costs	£28.95 per sign (300mm x 210mm laminated prints applied to composite aluminium) £14 per wooden stake Delivery £6.50	£42.95 per sign excluding delivery