

“By strengthening natural assets & bringing more nature into the business district, we will increase biodiversity & ecosystem services for the benefit of current & future generations.”

Marc Tomes CMLI, Allen Scott



SECTION 3 - OPPORTUNITIES FOR IMPROVED GREEN INFRASTRUCTURE

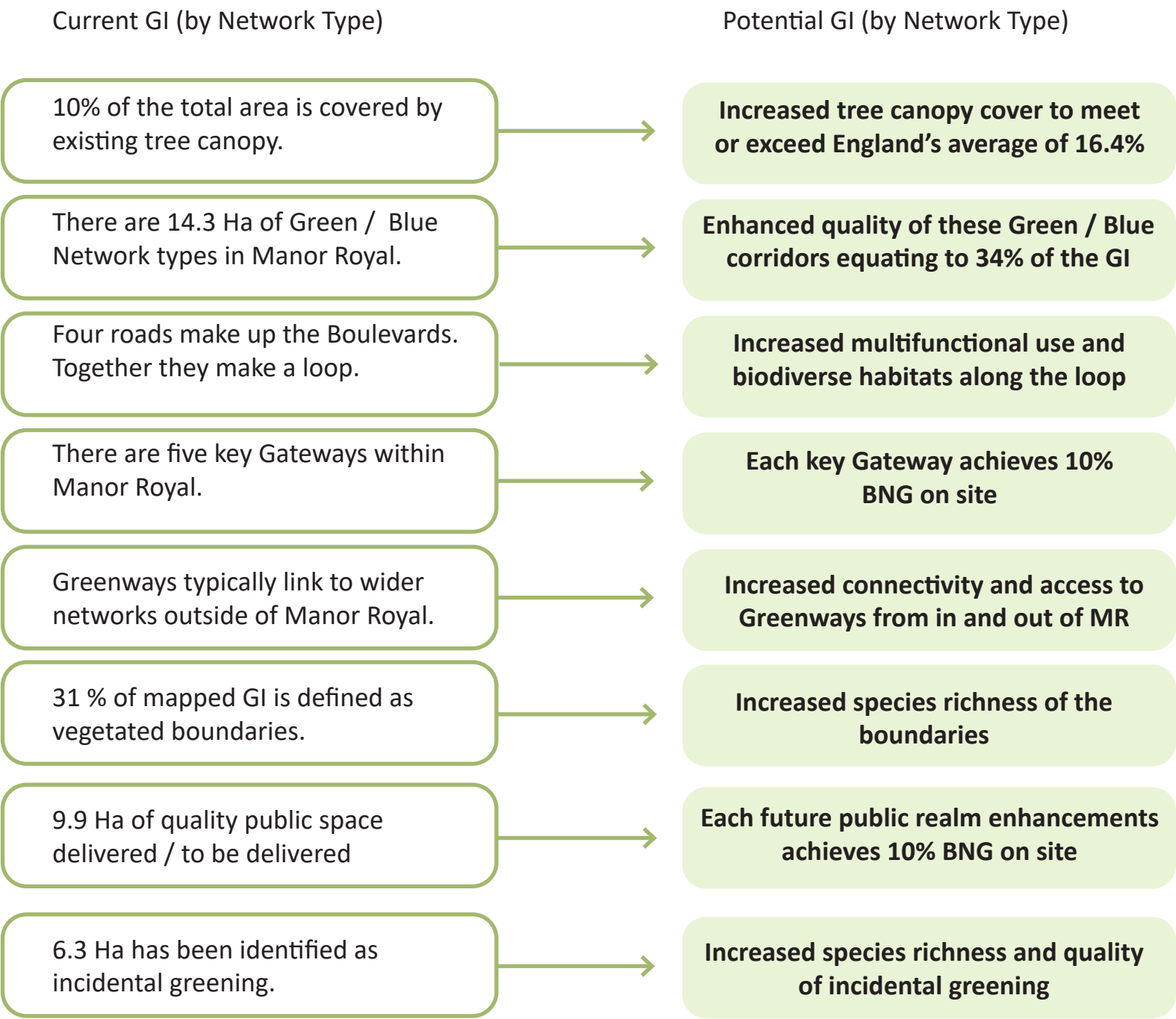
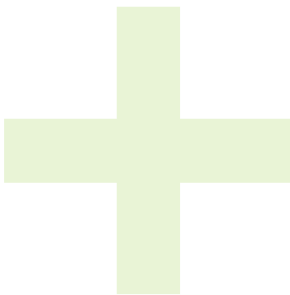
WITHIN MANOR ROYAL BUSINESS DISTRICT

This section outlines where and how to improve Green Infrastructure (GI) across Manor Royal.

Grounded by the baseline assessment, the recommendations have been made based on specific opportunities to increase Biodiversity Net Gain (BNG), increase the Urban Greening Factor (UGF) and deliver the Strategic Aims of this GI Framework.

Individually, the opportunities work towards the wider objectives set within the BIDs business plan, as well as helping deliver many local, regional and national policies and strategies in relation to GI. The recommendations have been proposed so to pick and chose, consolidate or phase over time.

Collectively, they aim to bring multiple benefits that focus on achieving a more biodiversity and resilient Manor Royal.



Opportunities for improving existing GI Network Types

Headline BNG recommendations:

The baseline assessment of existing BNG indicates there to be 83.73 Biodiversity Units of Habitat Area Features and 23.62 Biodiversity Units of Linear features within Manor Royal.

These existing habitats have the potential to be enhanced from Poor to Moderate condition over a 30 year period.

Enhancing the habitats through delivery of the Projects Pack and the commitment to ongoing management and maintenance across Manor Royal will result in a BNG of 32.34 habitat units (+37.72%) and 36.15 (153.01%) Linear Units.

Headline UGF recommendations:

The baseline assessment of existing surface cover types has a total area of 177,371.68 m2 with a baseline UGF score of 0.41.

Based on the potential to increase the areas of surface cover types with a higher UGF factor, Manor Royal has the potential to increase this UGF score by 0.29 to 0.70.

Some GI types present greater opportunity for UGF factor increase than others.

MANOR ROYAL’S GI BNG POTENTIAL

**APPROACHING
38%
NET GAIN IN
HABITAT UNITS**

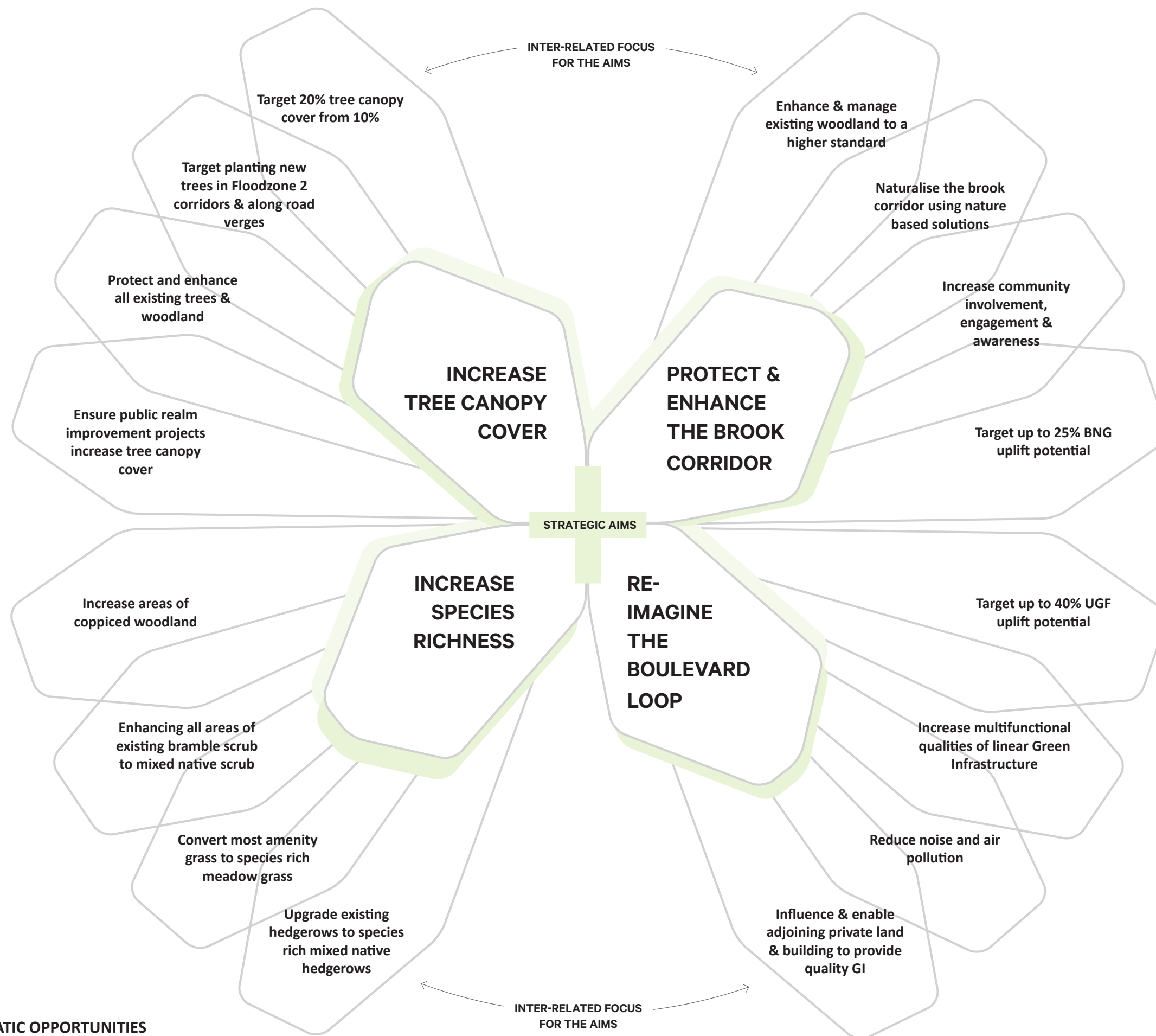
**AROUND
153%
NET GAIN
LINEAR UNITS**

**BASED ON A CONSERVATIVE
ESTIMATE OF BNG UNIT PRICES
OF £30,000 PER AREA AND LINEAR
HABITAT UNIT, THE GI WITHIN MANOR
ROYAL HAS A POTENTIAL AREA BNG
UNIT VALUE OF £970,200 AND A
POTENTIAL LINEAR BNG UNIT VALUE
OF £1,084,500.**

**MANOR ROYAL’S GI HAS THE POTENTIAL
TO INCREASE THE UGF SCORE BY:**

0.29

BNG & UGF OPPORTUNITIES HAVE BEEN
INTEGRATED INTO THE FOLLOWING STRATEGIC
AIMS & THEMATIC OPPORTUNITIES FOR THIS GI
FRAMEWORK.



STRATEGIC AIMS & THEMATIC OPPORTUNITIES



INCREASE TREE CANOPY COVER

INCREASE TREE CANOPY COVER

The tree canopy cover in Manor Royal comprises of a mix of remnant parcels of ancient woodland and secondary woodland. There are many, if not veteran, notable trees, some possibly marking old field boundaries.

The cover is mostly consistent and generally in good health. Typical /predominant species include English oak, beech and hornbeam. With some sizeable parcels of woodland there is also a strong contribution that linear trees make to the overall tree canopy.

The cover is most deficient in the centre area of the business district, along parts of Gatwick Road, London Road and Fleming Way.

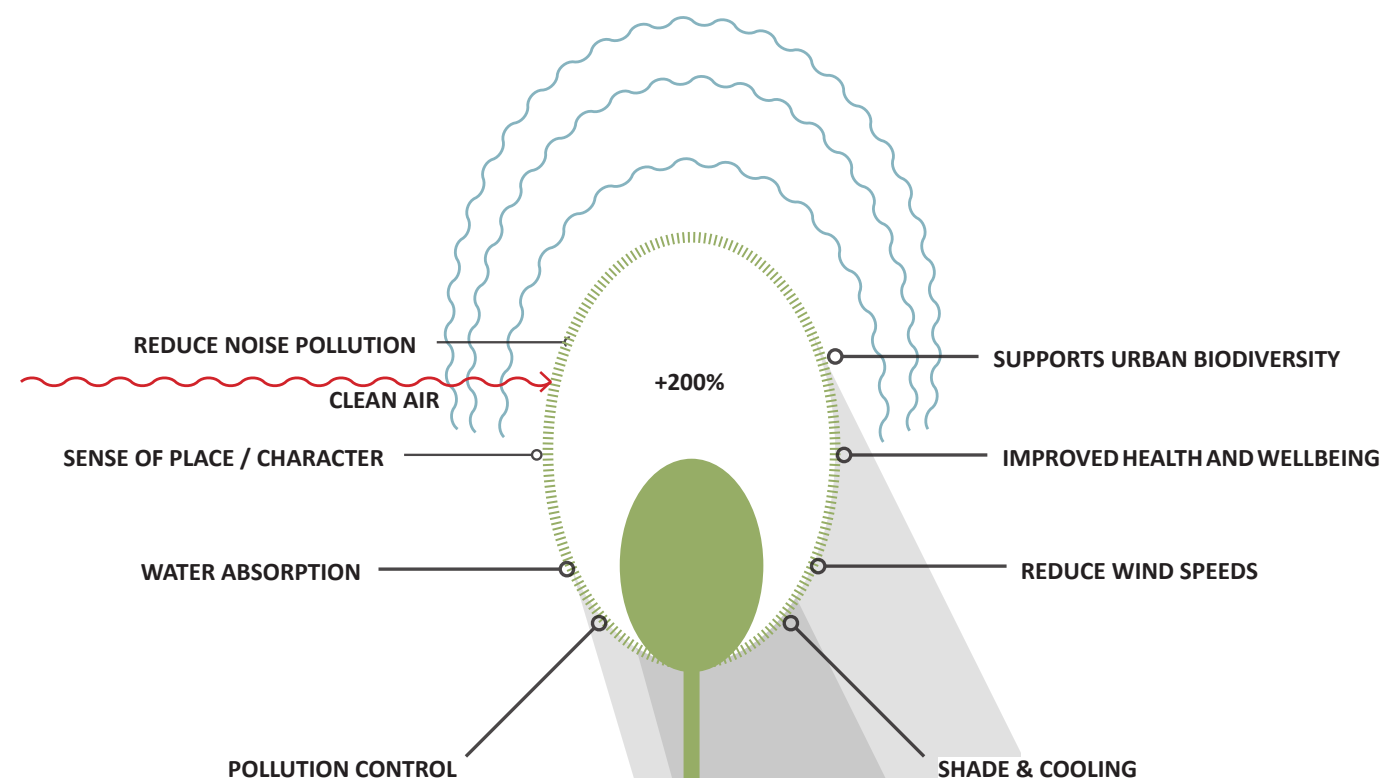
England's average canopy cover in urban (towns and cities) is 16.4% (source i-tree).

Canopy cover across the wider Crawley area is just over 20% (source i-tree).

The existing tree canopy cover within Manor Royal is only 10%.

Manor Royal's trees and their canopy provides important and multifunctional benefits to Manor Royal and the wider GI connections including:

- Trees act as carbon sinks, capturing and storing carbon dioxide from the atmosphere, and filter the air and reduce harmful.
- Trees provide habitats for a wide variety of wildlife, including birds, insects, and small mammals.
- Fallen leaves create organic matter that enriches the soil and helps create new topsoil.
- Trees and shrubs can reduce noise by up to 10 decibels per 30 meters of woodland.
- Trees help prevent flooding by slowing the speed of rain hitting the ground.
- Spending time surrounded by trees can help reduce stress and improve mood.



The benefits of trees and increasing their canopy cover



The aim is to increase canopy cover within Manor Royal by a further 10% so to reach the same as the wider Crawley area of circa 20% canopy cover.

Theoretical uplift from increased Tree Canopy Cover:

AIR POLLUTION REDUCTION

- A 10% increase in urban tree canopy can reduce particulate matter (PM10) by up to 2–4%, depending on species and urban form.
- Trees intercept pollutants like nitrogen dioxide (NO₂), ozone (O₃), and sulfur dioxide (SO₂), with larger canopies offering greater surface area for deposition.

NOISE ATTENUATION

- Tree belts can reduce urban noise by 5–10 decibels (dB), especially when combined with shrubs and ground cover.
- A 15% increase in canopy cover in strategic corridors (e.g. near roads or rail lines) can yield perceptible reductions in ambient noise levels.

URBAN COOLING

- A 10% increase in tree cover can lower local temperatures by 0.5–2°C, particularly in heat island zones.
- Shade from trees reduces surface temperatures and mitigates heat stress, with compounding benefits for energy demand and public health.

CARBON SEQUESTRATION

- A 15% increase in canopy cover across a medium-sized UK city could sequester hundreds of tonnes of CO₂ annually, though this varies by species, age, and soil condition.
- While not a substitute for emissions reduction, urban trees contribute meaningfully to adaptation strategies.

STORMWATER MANAGEMENT

- A 10% increase in canopy cover can intercept up to 5–10% more rainfall, reducing runoff and pressure on drainage systems.
- Tree roots also enhance infiltration and soil stability.

The existing tree stock is still growing and needs protecting / sustaining. Conserving existing trees is extremely important as these have a much higher and existing carbon capture rate, as well as being more valuable ecosystem service providers. Planting newer trees is obviously important but they take years to ‘grow into the same value’ and require more maintenance at the start. Both strategies should work together.

Trees in and around Manor Royal, as in much of southeast England, face a variety of threats spanning fungal, bacterial, pest-related, and environmental causes.

- Vulnerabilities include:
- Ash Dieback
 - Acute Oak Decline
 - Horse Chestnut Bleeding Canker
 - Dutch Elm Disease
 - Honey Fungus
 - White rot Fungus
 - Spruce bark beetle, pine weevil
 - Climate change
 - Air pollution
 - Acid rain
 - Soil compaction
 - Drought / Heat
 - Wildfire

UGF proposals recommend the planting of urban trees along areas of roadside amenity grassland that are currently lacking tree cover.

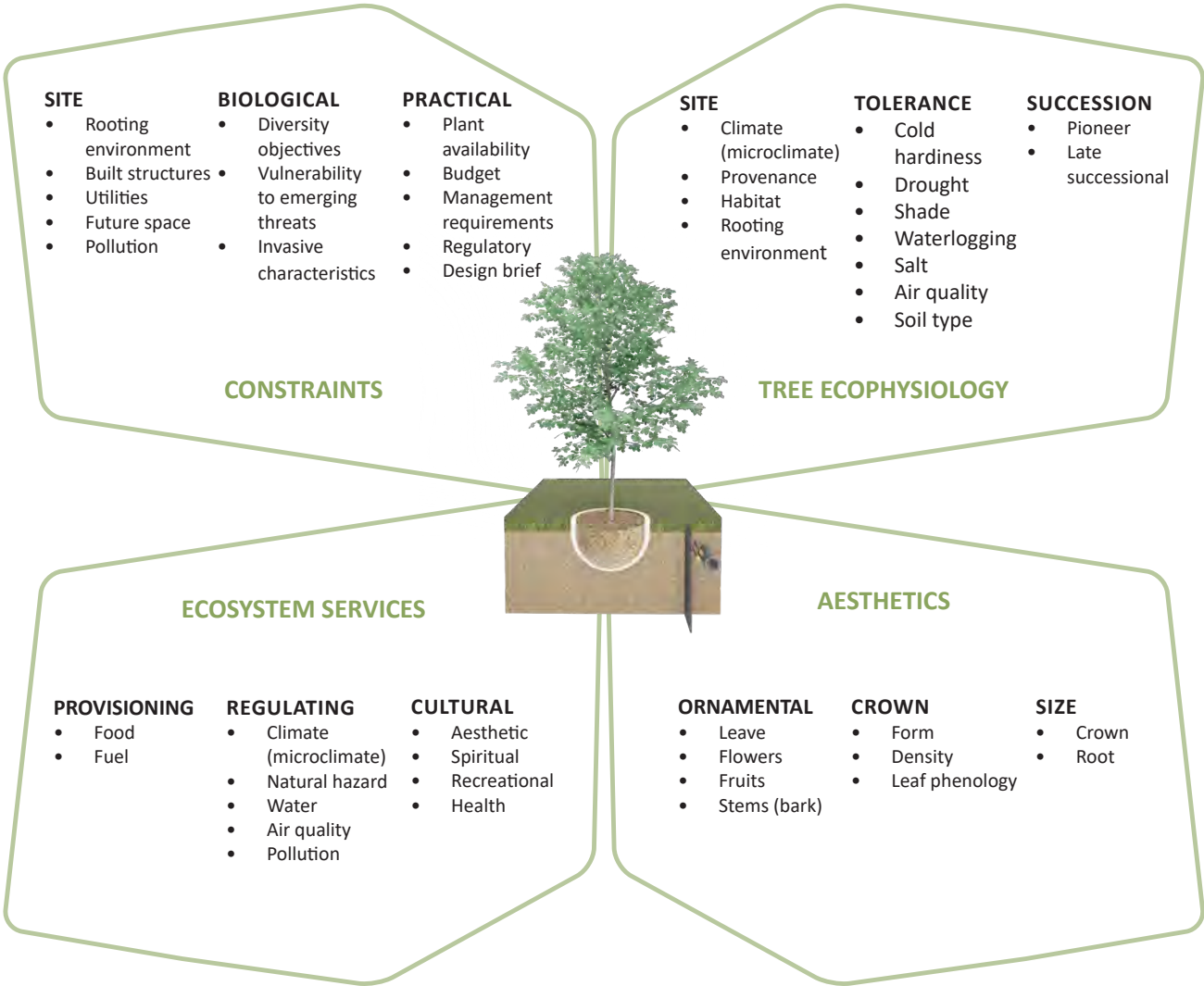
In addition, areas of current woodland across the site can be enhanced from poor to moderate condition. These changes would increase tree cover whilst improving the condition of existing areas of woodland, and in doing so increase the provision of valuable ecosystem services provided by trees such as mitigating air and noise pollution, enhancing flood resilience, and regulating temperature.

Based on a desktop exercise, to simply reach the target of achieving tree cover above the national average would require all current grassland areas to be converted to woodland as well as the removal of some areas of sealed surface to further increase viable substrate for tree planting. The feasibility of this is clearly a challenge and potentially not the right solution for Manor Royal.

There are many constraints such as avoiding planting new trees near existing underground services / utilities that restrict planting of new trees. There’s also vehicle sight lines, access and other highway related matters that would restrict this.

Challenges aside, the aim to increase the canopy cover by protecting existing trees and planting more of them.

See section 4 for actions on how to deliver these opportunities.



Principles of tree selection for GI. Adapted from Trees & Design Action Group (TDAG).

Recommended Tree Species

URBAN CORE



Small to Medium Trees with high tolerance to pollution and limited rooting space:

- 1- *Carpinus betulus* 'Fastigiata' (Upright Hornbeam)
- 2 -*Sorbus aucuparia* (Rowan)

URBAN FRINGE / PARKS / GREEN CORRIDORS



Medium to Large Trees with strong ecological and landscape value:

- 3- *Quercus robur* (English Oak)
- 4- *Tilia cordata* (Small-leaved Lime)
- 5- *Acer campestre* (Field Maple)
- 6- *Betula pendula* (Silver Birch)
- 7- *Alnus glutinosa* (Alder – especially near water)

WOODLAND AND BUFFER TREE PLANTING



Native and mixed species to support biodiversity and woodland structure:

- 8- *Crataegus monogyna* (Hawthorn)
- 9- *Corylus avellana* (Hazel)
- 10- *Ilex aquifolium* (Holly)
- 11- *Salix* spp. (Willows – for wet areas)
- 12- *Populus tremula* (Aspen – for fringe zones)

Selection Principles from Crawley’s Strategy

- Right tree, right place: Species are chosen based on soil, space, and surrounding infrastructure.
- Climate resilience: Preference for species tolerant to drought, heat stress, and urban pollutants.
- Biodiversity value: Native species prioritized where possible, with non-native ornamentals used sparingly.
- Canopy diversity: Avoid monocultures; promote structural and age diversity.
- Community benefit: Trees selected for shade, aesthetics, and engagement potential.

Sources:
Crawley Borough Council Tree Planting Strategy (2024)
Crawley Cabinet Decision – Tree Planting Strategy
Tree Species Selection for Green Infrastructure – Tree Council

FOCUS AREAS TO GAIN MULTIPLE BENEFIT

Currently 15% of MR intersects with EA Floodzone 2 of which 24% is currently woodland. It would make sense to focus future tree planting efforts in these areas that intersect with EA Floodzone 2 as this would provide the dual benefit of increasing both tree cover and flood resilience within MR.

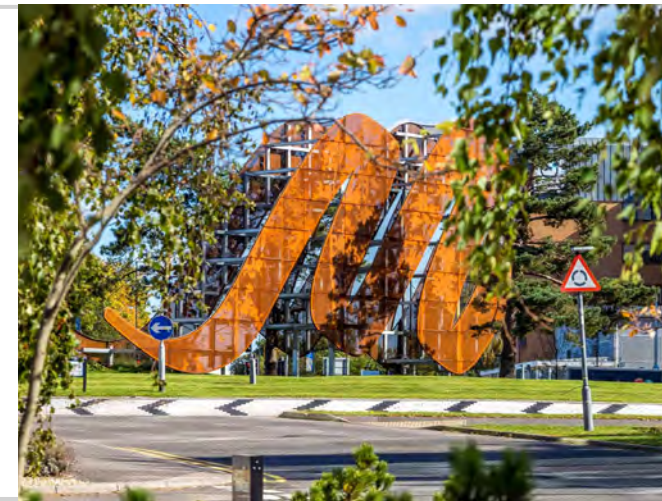
In terms of tree planting – mainly linear features in boulevards and microparks can be utilised to fill the gaps in the existing tree canopy. New trees will also add character, provide shade and help reduce air and noise pollution.



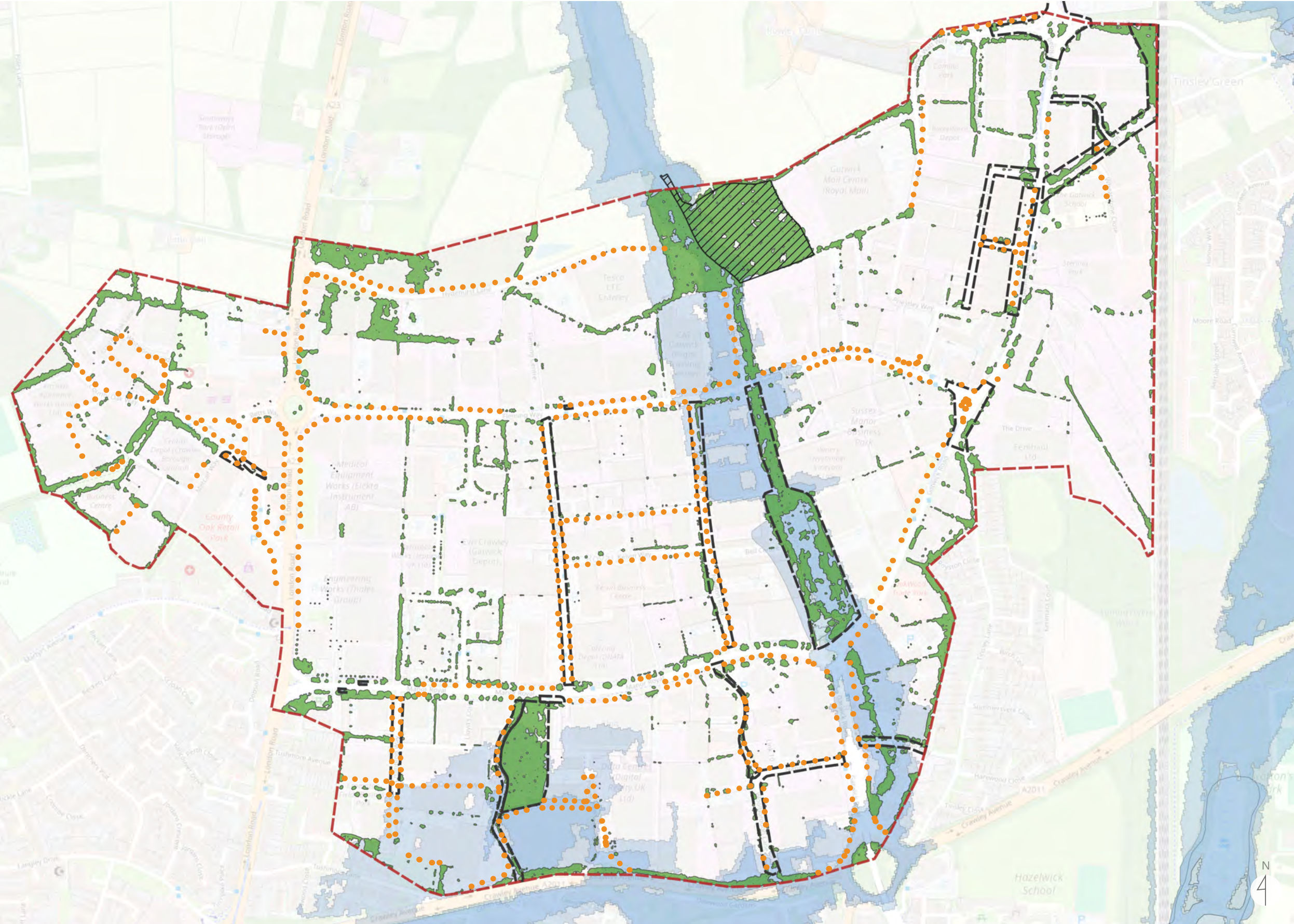
SOME GRASS VERGES ALONG THE MAIN ROADS SUCH AS FLEMING WAY & MANOR ROYAL ROAD CURRENTLY DON'T HAVE TREES. SUBJECT TO FURTHER SITE INVESTIGATION, THESE GAPS PRESENT OPPORTUNITIES FOR NEW TREE PLANTING WITHIN PUBLIC LAND.



Crawter's Brook is within Floodzone 2



PROTECTING EXISTING TREES AND PLANTING NEW TREES WITHIN MICROPARKS AND GATEWAY ENHANCEMENT PROJECTS WILL HELP IMPROVE THE CHARACTER AS WELL AS PROVIDING SHADE AND HELPING REDUCE AIR / NOISE POLLUTION.



- MANOR ROYAL
- FLOOD ZONE 2
- FLOOD ZONE 3
- NEW TREE PLANTING WITHIN SIGNATURE PROJECTS AND HOTSPOTS WHERE POSSIBLE
- LOCAL WILDLIFE SITE
- EXISTING TREE CANOPY PROTECTED & ENHANCED (INDICATIVE)
- POTENTIAL NEW TREE CANOPY (INDICATIVE)

LOCAL WILDLIFE SITE BOUNDARIES PROVIDED BY SUSSEX BIODIVERSITY RECORD CENTRE (SXBRC), 2025.

CONTAINS PUBLIC SECTOR INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE V3.0

BASE MAP AND DATA FROM OPENSTREETMAP AND OPENSTREETMAP FOUNDATION (CC-BY-SA). © [HTTPS://WWW.OPENSTREETMAP.ORG](https://www.openstreetmap.org) AND CONTRIBUTORS.

NATIONAL TREE MAP – © BLUESKY INTERNATIONAL LIMITED

INCREASE TREE CANOPY COVER



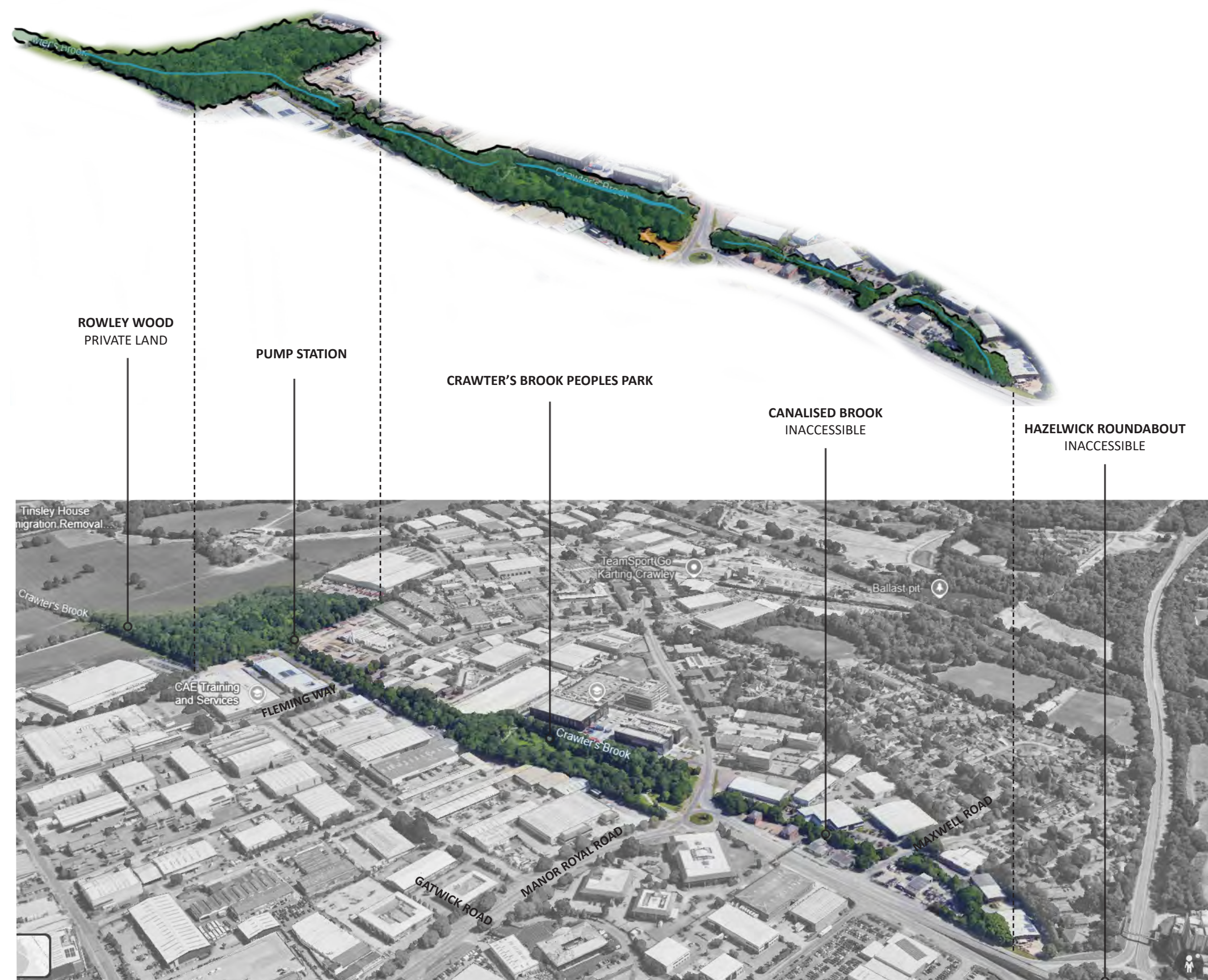
PROTECT & ENHANCE CRAWTER'S BROOK

Crawter's Brook is an essential multifunctional Green / Blue Infrastructure linear asset for Manor Royal and the wider network.

The most accessible and recognisable part of the linear asset is Crawter's Brook People Park publicly accessible from Fleming Way and Gatwick Road.

To the north of the People's Park, the brook navigates along Jenner Road through Rowley Wood within an open channel. There is no public access to Rowley Wood due to this being in private land. There is, however, a pump station owned and managed by CBC at the southern entrance to Rowley Wood.

To the south of Gatwick Road, the brook navigates as a channel behind Bank Precinct and Baird Close to the Hazelwick Roundabout where it is piped and hidden.





“CRAWTER’S BROOK HAS A VARIETY OF HABITATS INCLUDING RARE WET WOODLAND, THESE HAVE A SIGNIFICANT POTENTIAL TO PROVIDE EVEN GREATER BIODIVERSITY THROUGH CAREFUL MANAGEMENT AND INTERVENTIONS.

ADDITIONALLY THE SITE HAS THE POTENTIAL OF USING BNG TO HELP RESOURCE THE DELIVERY OF THOSE WORKS AND MONITORING THE BENEFITS FOR WILDLIFE”

Adonis Blue Environmental Consultants

Crawter’s Brook Peoples Park is in the middle of the Business District. Neglected over many years, it had become overgrown and impassable in places and at one time in danger of being sold for a car park. In 2014, The Manor Royal BID turned it into a park area, accessible to all, and was officially opened by HRH the Duke of Gloucester, who planted a tree and maintained the Royal connection to the area.

In 2025 the Peoples Park was officially awarded its first Green Flag Award. Recognition of Crawter’s Brook being a valued and important area of GI for Manor Royal and its community.

Subject to further investigation and working in partnership with land owners there is an opportunity to continue to enhance the wider corridor for both people and nature.

The longitudinal corridor of GI follows the 'brook', which is described as part of the Mole upstream of Horley Water Body. The Environment Agency (EA) have classed the Mole upstream of Horley Water Body to have moderate ecological status.

The corridor is within Flood Risk Zones 2 & 3 (1 in 1000/100 chance of flooding each year). Areas such as the attenuation basin and the green / blue infrastructure are going to become more important for stormwater management / as a catchment basin & corridor as intense rain events increase into the future.

The majority of lowland mixed deciduous woodland and wet woodland along Crawter's Brook intersects within EA Floodzone 3, with the remainder intersecting with EA Floodzone 2.

Therefore, enhancements of woodland in these areas will not only benefit biodiversity but will increase the sites resilience to flooding.

The existing tree stock is still growing and needs protecting / sustaining.

Since the creation of the People's Park in 2015, Crawter's Brook has become very important to the Manor Royal community and visitors to the area.

The park is used for picnicking and a link for cyclists and walkers to follow the stream corridor. It provides a destination for a wide range of activities including youth and business volunteering activities, outdoor learning (insect hotels and habitat creations projects, monitoring wildlife and building and installing bird and bat boxes), and other forms of recreation such as jogging, dog walking and lunch time strolls.

Manor Royal BID is already investing in providing further enhancements to Crawter's Brook by installing a trail of bespoke public art pieces throughout the People's Park. These are intended to help reveal and tell the story of Manor Royal through public art, encouraging more people to use the People's Park and connect with Crawter's Brook.

Crawter's Brook is much more relevant for BNG than UGF. BNG recommendations are to enhance the areas of lowland mixed deciduous woodland and wet woodland from poor to moderate condition which will increase the areas biodiversity value. Additionally, several ephemeral scrapes are proposed within the area of wet woodland which will provide valuable habitat for a variety of wildlife such as birds, invertebrates, and amphibians.

With more people accessing and using the People's Park, there is potentially more pressure on the asset and its habitats. Therefore a strategy is required to manage the balance between protection and enhancement.

Opportunities to protect and enhance Crawter's Brook include doing more of what is already underway.

Sussex Wildlife Trust (SWT) use Crawter's Brook for Wildlife Recording Days, organising volunteering activities for local businesses and running events for The Gatwick School.

The work is as much about improving the ecology and biodiversity of the site, as it is about getting people to connect and learn about nature. Tasks include gapping native boundary hedges, building and installing bird boxes, creating insect hotels, making deadwood habitat piles, hand-pulling Himalayan balsam and clearing trees and scrub from areas they are not appropriate.



The following pages highlight opportunities to enhance the GI within Crawter's Brook People's Park.

ENHANCE WOODLAND

Enhance the areas of lowland mixed deciduous woodland and wet woodland from poor to moderate condition which will increase the areas biodiversity value.

10-15 year coppice rotation, arranged to ensure at least two years of growth between each block, some cutting retained as wildlife habitat.

Other tree species thinned in year 5 to 10 to ensure growth of quality trees. Some fallen or standing deadwood left to enhance biodiversity.



ADD EPHEMERAL SCRAPES

Ephemeral scrapes to provide valuable habitat for a variety of wildlife.

Scrapes should be dug in october, shallow but varied depth so that the varied depth and profiles encourage a higher diversity of invertebrates, amphibians and plants, no uniformity and at least 20m2 in surface area. Ideally at least one within sight of the boardwalks for public viewing.



PROTECT COMMUNITY AND BIODIVERSITY VALUE

Continuing to support volunteering / partnerships and provide opportunities for the community to get involved in removal of invasive species and enhancement works.

Invasive species such as Cotoneaster spp. and buddleia should be removed from site and monitored regularly. Bramble bashing on biannual rotation to control the spread should be carried out to allow the ground flora to colonise.



NATURALISE THE BROOK

Various options to naturalise the canalised brook from re-engineering the alignment through to dressing the existing concrete (see next page)

Areas of amenity grass within the southern entrances to the People's Park can be enhanced to species rich grass. See Aim: Increasing Species Rich Vegetation.

OPTIONS TO GAIN MULTIPLE BENEFITS

Enhancements to Crawter’s Brook present various options. Each option will require further, more detailed, consideration / feasibility and engagement with various stakeholders such as the Environment Agency and Crawley Borough Council.

Options include ambitious moves to naturalise the brook by removing the concrete channel and allowing water to move more freely and slowly across the attenuation basin. Less ambitious inventions, such as dressing the concrete channel with material than can encourage enhanced biodiversity are possibly more achievable but have less impact.

Due to the location of Manor Royal being within 13km of Gatwick Airport, all proposals will need to be consulted on with Gatwick Airport so to minimise bird strike risk.

Also note that there is an ancient scheduled monument within the attenuation basin. Careful consideration and consultation is need with statutory bodies when exploring options.

RE-MEANDERING OPTION = MAXIMUM ECOLOGICAL AND HYDROLOGICAL BENEFITS, BUT HIGH COST/SPACE NEEDS.

This would require extensive research, permitting and seeking consent before breaking any ground. The vision would be to recreate the natural flow of the river, creating meanders through the lower parts of the woodland and installing leaky wooded structures to slow the flow of the river down and retain more water within the system. This could have the benefits of reducing flow downstream during flood events and could be classed as natural flood management. Scrapes within the areas proposed could still be created and would be filled naturally from the river during rain inundation periods.



- BENEFITS:**
- *ENHANCE BIODIVERSITY*
 - *IMPROVED FLOOD MANAGEMENT*
 - *BETTER WATER QUALITY*
 - *NATURE BASED SOLUTION*
 - *CULTURAL & RECREATIONAL VALUE*

ONE-SIDE REMOVAL OPTION = GOOD COMPROMISE, BALANCING RESTORATION WITH FEASIBILITY.

A lower risk alternative, while still aiming to naturalise the flow of the river would be to maintain the flow path but remove the culvert on at least one of the sides of the river. This would allow the banks of the river to be colonised by native marginal vegetation, some of which already exists and is breaking through areas of the culvert. Hydrologists should be consulted prior to removal and risks should be assessed based upon this.



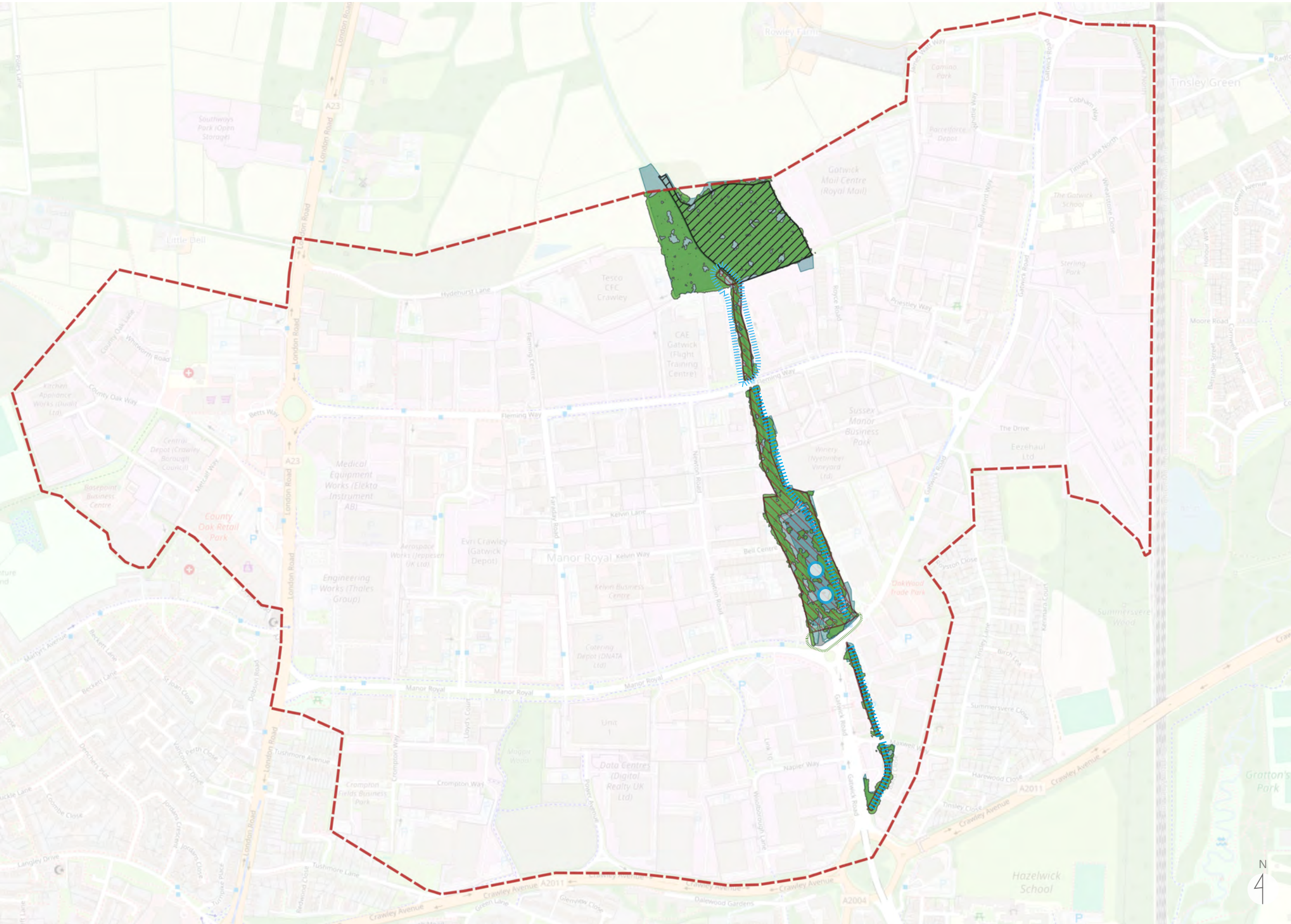
- BENEFITS:**
- *RE-CONNECTION WITH FLOODPLAIN*
 - *IMPROVED HABITAT DIVERSITY*
 - *WATER QUALITY IMPROVEMENTS*
 - *COMMUNITY & AESTHETIC VALUE*

COIR MATTING OPTION = CHEAPEST AND QUICKEST, BUT MAINLY COSMETIC/ ECOLOGICAL “LIGHT TOUCH.”

Instead of naturalising the flow path of the brook, the placement of coir matting over the artificial banks of the culvert could be used to create an artificial river bank for marginal vegetation to colonise.



- BENEFITS:**
- *RAPID VEGETATION ESTABLISHMENT*
 - *IMPROVED HABITAT PROVISION*
 - *BANK PROTECTION*
 - *AESTHETIC VALUE*



- MANOR ROYAL
- CBC LAND OWNERSHIP
- EXISTING LOCAL WILDLIFE SITE
- PROTECT & ENHANCE WOODLAND
- ENHANCEMENT THROUGH NATURALISING THE BROOK
- ENHANCEMENT THROUGH EPHEMERAL SCRAPES (INDICATIVE)
- ENHANCEMENTS TO BROOK VEGETATION WITHIN CBC LAND NORTH OF FLEMING WAY
- ENHANCEMENTS TO VEGETATION AT FRONTAGE TO PEOPLE'S PARK

CONTAINS PUBLIC SECTOR INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE V3.0'

BASE MAP AND DATA FROM OPENSTREETMAP AND OPENSTREETMAP FOUNDATION (CC-BY-SA). © [HTTPS://WWW.OPENSTREETMAP.ORG](https://www.openstreetmap.org) AND CONTRIBUTORS.

NATIONAL TREE MAP – © BLUESKY INTERNATIONAL LIMITED

PROTECTING AND ENHANCING CRAWTER’S BROOK



INCREASE SPECIES RICHNESS

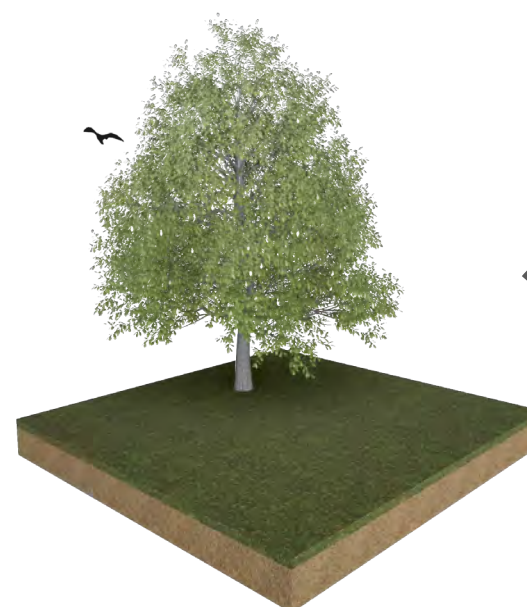
Generally, there is much opportunity to increase species rich vegetation throughout Manor Royal.

This includes habitat areas (over 0.1ha) and all linear habitats considered and recommended for BNG opportunity.

These include enhancing:

- Woodland and lines of trees from poor to moderate condition
- All areas of bramble scrub to moderate condition mixed scrub
- Amenity grassland to species rich meadow grass
- Hedgerows

Locations of these habitats are shown on the next page followed by recommendations on how to enhance them.



SPECIES POOR VEGETATION / GI

PROS

- **RESILIENCE AND HARDINESS**
- **EASE OF MANAGEMENT**
- **SOIL PROTECTION**

CONS

- **LOW BIODIVERSITY VALUE**
- **HOMOGENEITY**
- **REDUCED ECOSYSTEM SERVICES**
- **MISSED CULTURAL / LANDSCAPE VALUE**
- **INDICATOR OF POOR ECOLOGICAL HEALTH**



SPECIES RICH VEGETATION / GI

PROS

- **HIGH BIODIVERSITY VALUE**
- **RESILIENT ECOSYSTEM**
- **ENHANCED ECOSYSTEM**
- **CULTURAL AND HERITAGE VALUE**
- **AESTHETIC AND RECREATIONAL BENEFITS**

CONS

- **CHANGE IN MANAGEMENT REQUIREMENTS**
- **SLOW TO RESTORE IF LOST**



Existing (September 2025)



ILLUSTRATION OF POTENTIAL SPECIES RICH VEGETATION ALONG MAGPIE WOOD CYCLE / WALK WAY

Woodland & lines of trees

In locations such as Rowley Wood and Crawler’s Brook, species such as willow, hawthorn and hazel can be coppiced to create a diverse age structure targeting small areas on rotation. Coppice rotation should span 10-15 years, promoting varied habitats for different animal species. Coppice coupes will be arranged to ensure at least two years of growth between each block. Most of the ‘lop and top’ from coppicing will be burned on-site, with some retained as wildlife habitat.

Other tree species can be thinned in years 5 and 10 to ensure the growth of quality trees. Semi-natural features, such as banks, earthworks, and pollards/stubs, should be identified, protected, and retained during woodland management through pre-start meetings, marking, and a hazard and constraint plan.

In newly coppiced areas, restocking will rely on the regrowth of cut stools and the recruitment of suitable broadleaf trees. Regeneration will be monitored annually to prevent browsing damage by deer, squirrels, and rabbits.

The area surrounding the pumpstation in Rowley Wood could be cleared of overwhelming plant material to create a woodland edge habitat with smaller scrub species and wildflowers. Using brush cutters to reduce the overwhelming brambles and nettles should allow species such as dog’s mercury and herb Robert to colonise areas through the existing seedbank.

Invasive species such as Cotoneaster spp. and buddleia should be removed from site and monitored regularly. Bramble bashing on biannual rotation to control the spread should be carried out to allow the ground flora to colonise.

Planting new lines of trees should be carried out from November to February during the period of tree dormancy to allow young trees to establish roots before summer droughts and should be planted at over 5m spacings. Some typical species for hedgerows with trees are Beech (*Fagus sylvatica*), Field Maple (*Acer campestre*), and English Oak (*Quercus robur*).

To protect the trees from damage from wild animals, place tree guards around the saplings for at least 2 years and then further for slower growing species and by the fifth year after planting, the trees should be established. Management of the tree guards should be undertaken to protect any damage to growing trees.

Selective thinning should be undertaken every 15 years from year 15. Retain at least 75% canopy cover to limit thicket regenerations, select for larger crown potential. Retain standing deadwood and trees with snags. Invasive species control should be undertaken yearly until absent. Monitor the presence of invasive species and adapt future management and monitoring plan revisions accordingly.

**FELLED AND CHIPPED TREES
WITHIN AREAS OF WOODLAND
CAN BE KEPT ON SITE AND USED
FOR WOODCHIP PATHS.**



**DEADWOOD WILL ENHANCE
BIODIVERSITY, CONSISTING
PRIMARILY OF FALLEN TREES OR
THOSE FELLED AND LEFT IN SITU,
ALONG WITH HABITAT PILES
SCATTERED THROUGHOUT THE
WOODLAND.**



Enhancing bramble scrub to mixed scrub

In Manor Royal, bramble often colonises brownfield edges, the rail embankments, park margins or neglected corners. Rather than clearing it wholesale, phased enhancement in patches is still best, but here it’s especially important to create a tidy but natural look so local communities see the value. Cutting bramble back in scallops and strips, and leaving some flowering/berrying stands, prevents it looking like “abandonment” while opening space for other native shrubs. Cut material can be stacked into neat “dead hedges” or habitat piles along edges, both to screen less tidy zones and to highlight a deliberate conservation design.

Natural regeneration will still bring in thorn, rose and tree seedlings, but in an urban setting, such as Manor Royal, regeneration can be patchy, especially where seed sources are limited or soils are compacted. In such cases, planting is more important.

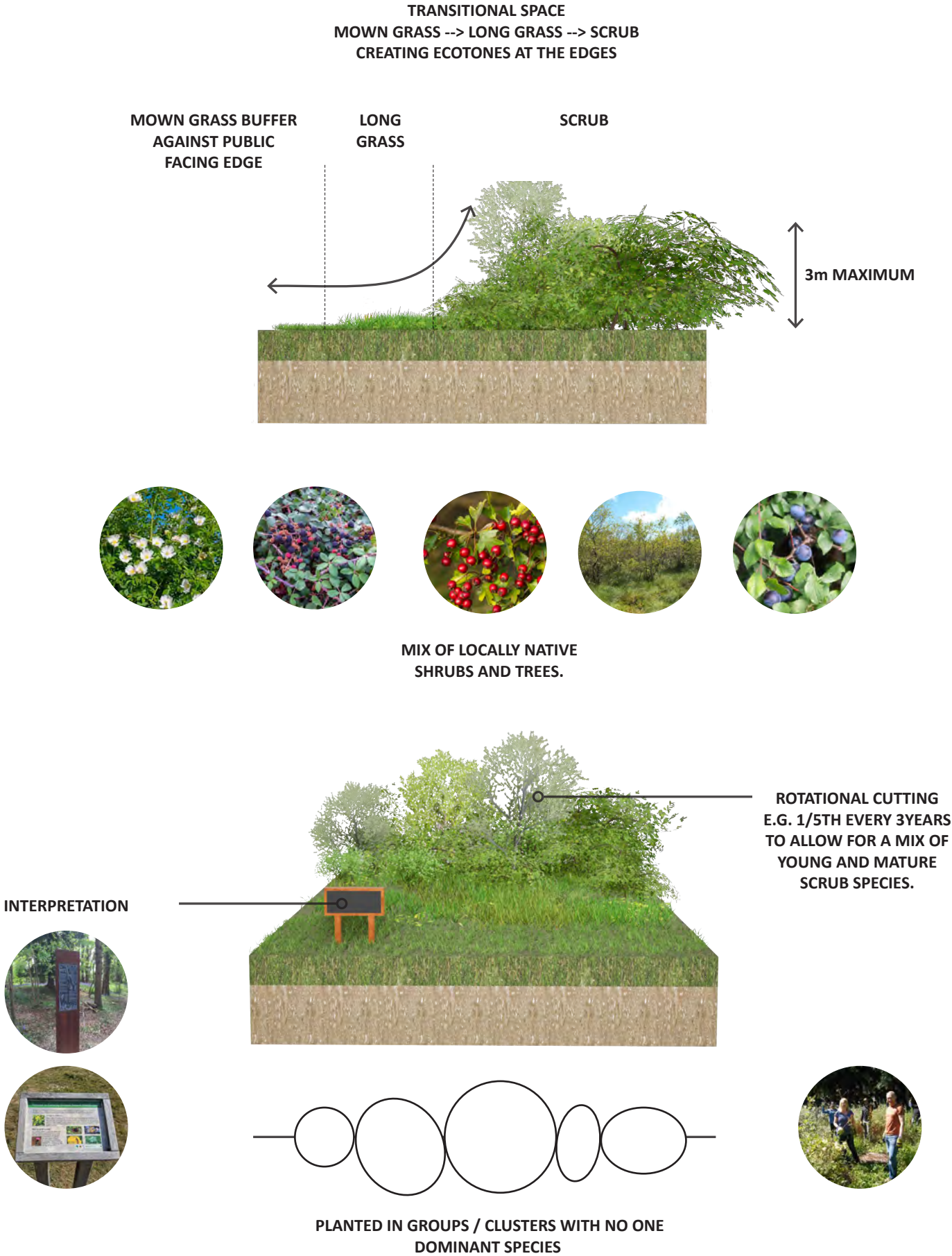
Use locally native, wildlife-friendly shrubs (hawthorn, dog-rose, blackthorn, hazel, guelder-rose, spindle) with a sprinkling of trees such as rowan, silver birch or oak, sourced from UK-provenance nurseries. Plant in clusters to mimic natural scrub thickets and ensure a more immediate sense of design. Interpretation boards or signs explaining “urban scrub creation” can help build public support.

Where space is constrained, maintenance is critical. Light-touch mowing or strimming of paths, edges and selected glades can show care while preventing bramble from reclaiming the entire site.

Occasional community volunteer days can be used for bramble cutting, planting, or even small wildlife surveys—helping people feel part of the habitat’s story. As grazing isn’t feasible, regular rotational cutting (every 2–3 years) of different patches provides similar structural variety.

Because people are closer to the habitat, safety and visibility matter. Retain some dense cover for wildlife, but design scalloped edges and open “sightlines” near paths so scrub doesn’t feel unsafe. Species with ornamental as well as ecological value (dogwood, spindle, guelder-rose) can help blend the scrub into more formal greenspaces. Nectar-rich shrubs and native climbers such as honeysuckle can soften the aesthetic and boost pollinator value.

Finally, urban scrub should be managed with both biodiversity and people in mind. Retain enough bramble, rose and thorn to provide berries and cover for birds, but frame this within a planned mosaic of different shrubs and small trees. A diverse, layered scrub edge not only supports wildlife but also creates a richer, more attractive green space for local communities—transforming what might be seen as “wasteland bramble” into valued “urban biodiverse oasis.”



Amenity grass to species rich meadow grasses

The existing areas of amenity grassland look relatively poor in terms of species richness, so there are lots of potential for improvement. Manor Royal is an urban area so establishing a traditional grassland is not possible, however there are wildlife-friendly seed mixes for lawns that are an option and provide a good middle ground.

Management should take into account how functional the area is and if the parcel is used often or if it is more out of the way and therefore doesn't need to be mowed so regularly.

In many cases over Manor Royal this can be increased through re-thinking management principles / allowing natural succession i.e. carefully developing it starting from the baseline rather than ripping out and starting again.

The EM2 Standard General Purpose Meadow Mix is a well-regarded wildflower and grass seed blend designed to recreate traditional meadow habitats across a wide range of soil types.

Other products may also be suitable such seeded soil mix which can be applied to existing areas of turf / grass. Detailed guidance is available from suppliers such as Emorsgate, Wildflower Turf, John Chambers etc.

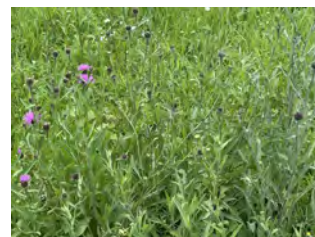
Roadside verges can be grouped into 2 categories:

Verges where the grass can be left taller:

For verges that can be left to grow taller, maintenance teams can cut and collect once in September or a second cut in the following March to reduce rank vegetation. Larger sections of verges can be left uncut over winter, cut once per year on rotation in those areas. To ensure tidiness in the public eyes, it is suggested that a low-cut buffer of 1 metre surrounding the taller grassy areas.

Yellow rattle (*Rhinanthus minor*) seeds can be applied on areas with rank verges to control the density of grass species while also providing for pollinators. As the roots develop, it seeks out the roots of plants growing nearby, especially grasses.

Once it makes contact, yellow rattle draws water and nutrients from the nearby plants, which leaves space for flowers to grow. To plant yellow rattle, seeds must be applied after a cut is taken later in the year between July and September and can be hand sown by volunteers, locally sourced seeds are advised.



Verges which need regular cutting to reduce obscured views from roadway:

For areas where cutting must continue at higher rates, such as areas which need unimpeded views of the roadway ahead, a low growing seed mix can be applied.

This will provide pollinating plants to improve biodiversity and provide food sources for pollinators.

Once the seed mix has been sown, such as other seed mixes have been, cutting regimes should be limited to 5 or 6, and cutting should not occur from May until August to allow wildflowers to bloom for pollination.

A diverse mix of native wildflowers includes yarrow, oxeye daisy, wild carrot, lady's bedstraw, bladder campion, bird's-foot trefoil, ribwort plantain, cowslip, selfheal, meadow buttercup, yellow rattle, sorrel, and knapweed.

Grasses include brown top bent, crested dog's-tail, slender creeping red fescue, and timothy.



Roundabouts, open spaces, parks and private green spaces can also apply the same principles.

NOTE: Additional care and consideration is need in relation to access, use and other benefits that can be designed into enhancing the GI in these locations

ENHANCING HEDGEROWS

There is an opportunity for all hedgerows to be enhanced from “Native Hedgerows” to “Species-Rich Native Hedgerows” (SRNH). The definition of SRNH is that of a hedgerow containing at least 5 native shrub species every 30 metres of the hedgerow. Good condition hedgerows would meet the criteria of it being both taller and wider than 1.5 metres on average along the length of the hedgerow, a relatively continuous coverage of canopy both vertically and horizontally with a healthy and undisturbed floral base made of native herbaceous forbs.

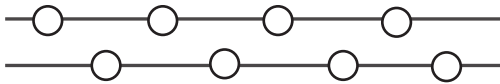
To enhance the hedgerow to a SRNH, each hedgerow must be surveyed to calculate the number of species present within the hedgerow, which will allow the number of species and individuals needed to make up the lengths of hedging. Once this has been ascertained, areas of the hedgerow which are currently occupied by the dominant species of shrub can be removed outside of the bird breeding season, so that the new native species can be planted in.

Hedges should be cut back every three years to allow suitable levels of regeneration, while still maintaining levels neatness and tidiness for members of the public. The cutting back can either be undertaken by hand held machinery such as hedge trimmer’s or heavy machinery such as tractor mounted hedge flails. All works should be undertaken between the months of September and February.



5 NATIVE SHRUB SPECIES
EVERY 30m

MARK TWO PARALLEL ROWS 20CM APART.
HEDGEROW SPECIES TO BE PLANTED AT
40CM INTERVALS, CREATING A ZIG-ZAG
PATTERN. AIM FOR APPROX 5 PLANTS PER
M2. WITH EACH



PLANT BETWEEN NOVEMBER AND
MARCH. IN THE FIRST SPRING AFTER
PLANTING, SHURBS SHOULD BE CUT
DOWN TO 45-60CM ABOVE GROUND TO
ENCOURAGE THEM TO BUSH OUT
(WILDLIFETRUSTS.ORG, 2025)

CUTTING BY HAND OR
MACHINERY TO KEEP
GENERAL HEDGEROW SHAPE

UNMOWN BUFFER STRIP OF
GRASS WHERE APPROPRIATE

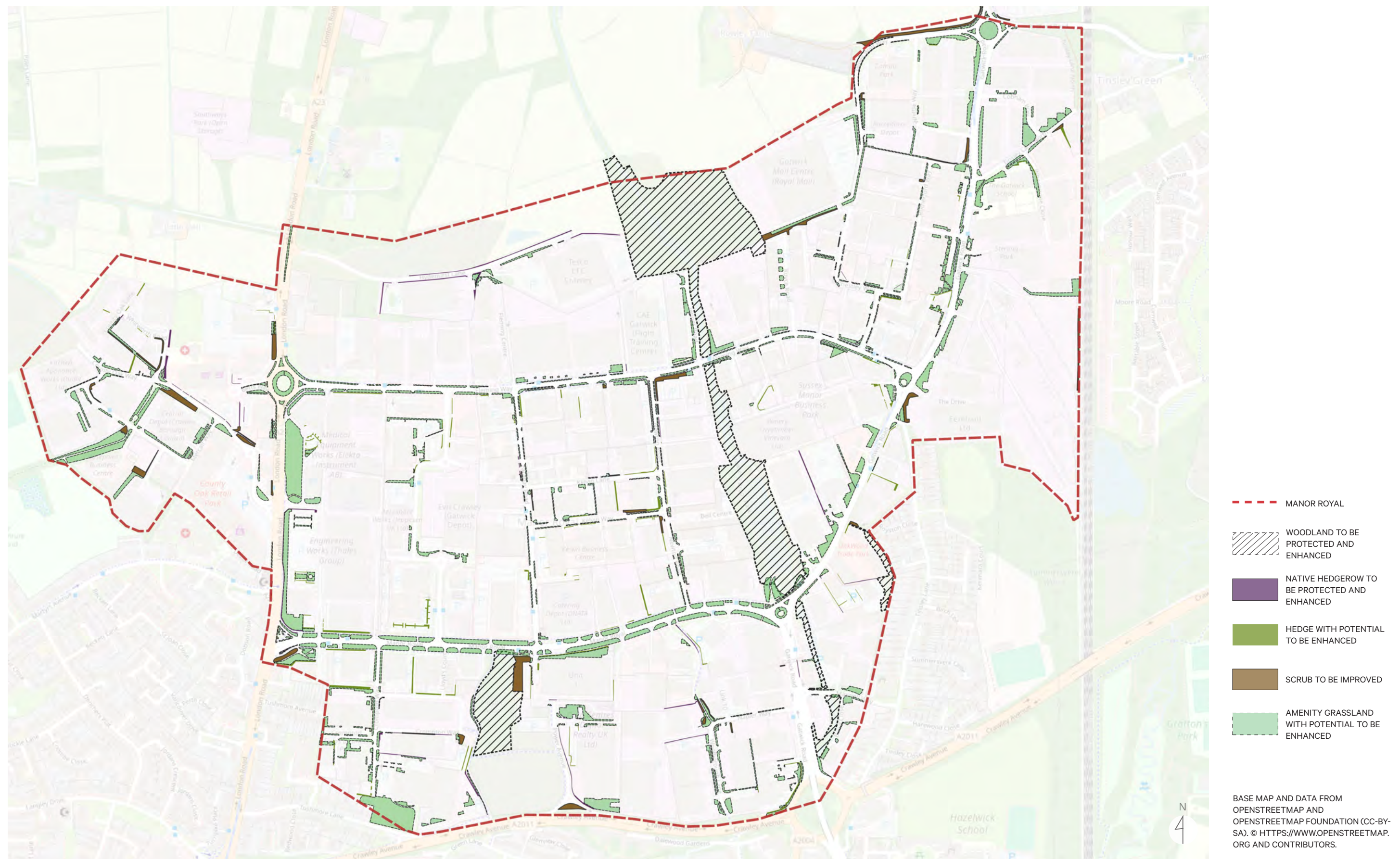




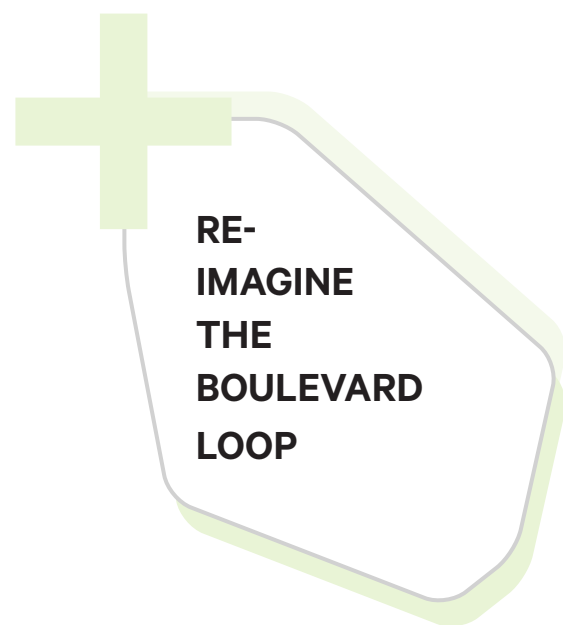
Existing (September 2025)



ILLUSTRATION OF POTENTIAL SPECIES RICH VEGETATION ALONG CROMPTON WAY



INCREASE SPECIES RICHNESS



RE- IMAGINE THE BOULEVARD LOOP

RE-IMAGINE THE BOULEVARD LOOP

The Boulevard loop comprises of the four main road corridors within Manor Royal.

Together these create a connected corridor of valuable Green Infrastructure that ties back to the original vision for Crawley New Town and Manor Royal.

Enhancing the corridors in a considered and consistent way can provide a loop of multifunctional quality Green Infrastructure.



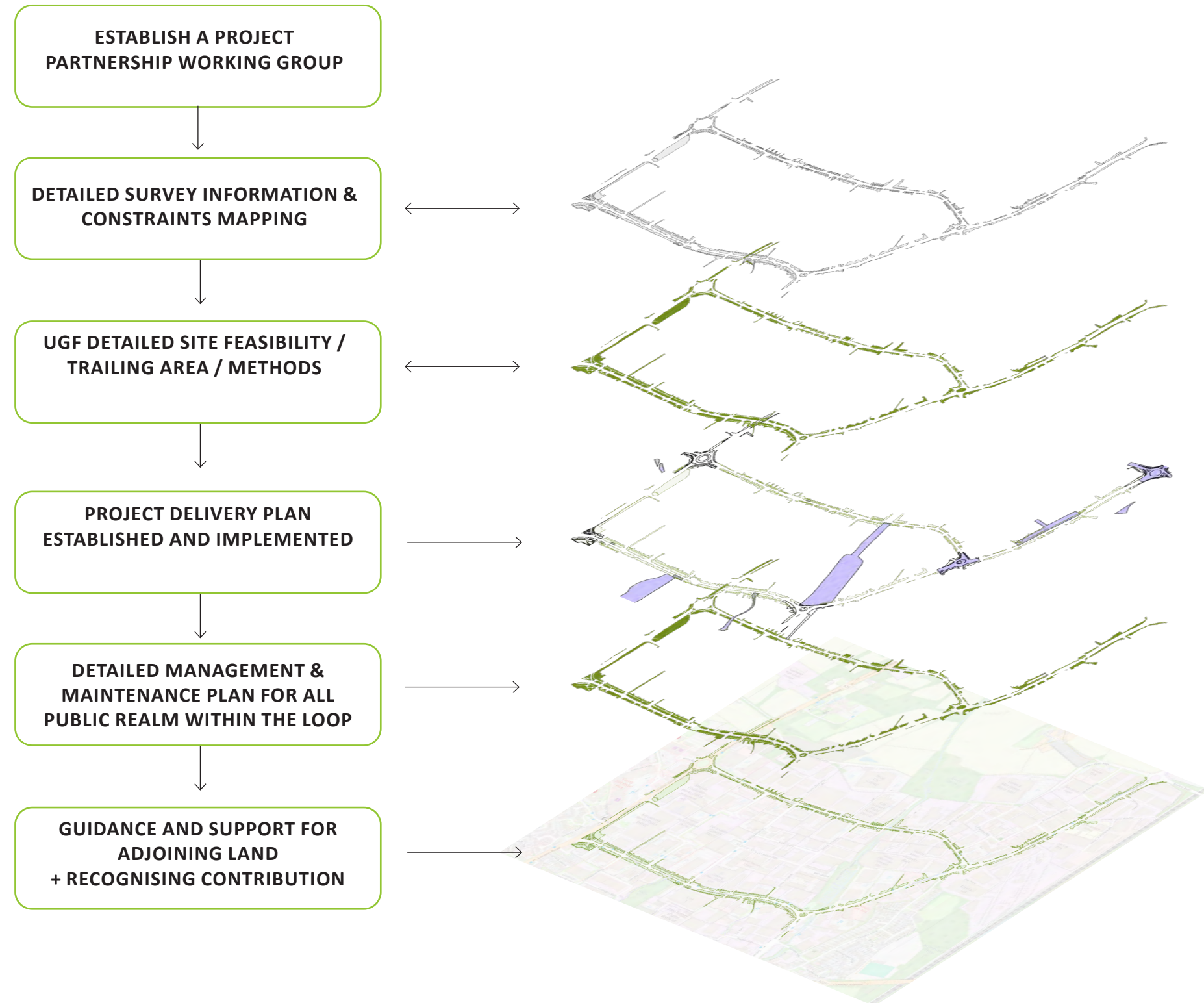
Creating boulevard streets with wide grass verges, hedges & trees was part of the original masterplan for Crawley New Town and Manor Royal.



RE-IMAGINING THE BOULEVARD LOOP STRATEGY & IMPLEMENTATION

The opportunity to enhance GI within these corridors straddle many of the other aims, but specifically this aim provides:

- Protection of the existing extent of Green Infrastructure
- Strengthening and celebration of the 'Boulevard' scale and character
- Protection and enhancement of the existing tree canopy cover
- Opportunity for planting more trees along the Boulevards
- Increase the multi-functionality of Boulevards
- Enhancement to the habitats and surface types
- Improvement to the boundary treatments along the corridors
- Encouragement for quality green infrastructure on adjoining private land
- Opportunity to promote green intervention such as green roofs, green walls and sustainable urban drainage systems (SuDS)
- Opportunity to deliver BNG
- Opportunity to deliver UGF



BNG recommendations are for all areas above 0.1ha in size to be enhanced from poor condition modified grassland to moderate condition other neutral grassland.

In terms of linear features, any hedgerows currently present on Boulevards can be enhanced from poor condition native hedgerows to moderate condition species-rich hedgerows, while lines of trees can be enhanced from poor to moderate condition.

Additionally, urban trees can be planted along boulevards that currently lack tree cover to increase habitat complexity, provide ecosystem services, and increase total tree cover across Manor Royal. The combination of these interventions will increase the species richness of the boulevards making them important wildlife corridors that provide habitat connectivity across Manor Royal.

Boulevards show the highest potential for UGF uplift, along with incidental greening (these categories largely overlap).

It is estimated that a 40.35% increase in UGF factor could be achieved in Boulevards, and this could likely grow with further assessments and detailed design.

The current state of the Boulevards is primarily patches of poor quality amenity grassland so much opportunity for improvement.

Opportunities mainly focus on enhancing the grass to the most species-rich and natural state possible (within reason in urban context) and adding bits of diverse habitat to create a mosaic of surface types that are not only beneficial for nature but also for community wellbeing.

These include patches of perennial flower planting, pollinator-friendly shrubs, hedges, trees. These areas would be managed to maintain functionality but aiming to optimise benefits for nature – e.g. areas of grass often walked on would be maintained clear and mowed more regularly, but in patches less functional the vegetation could be left to grow for longer.

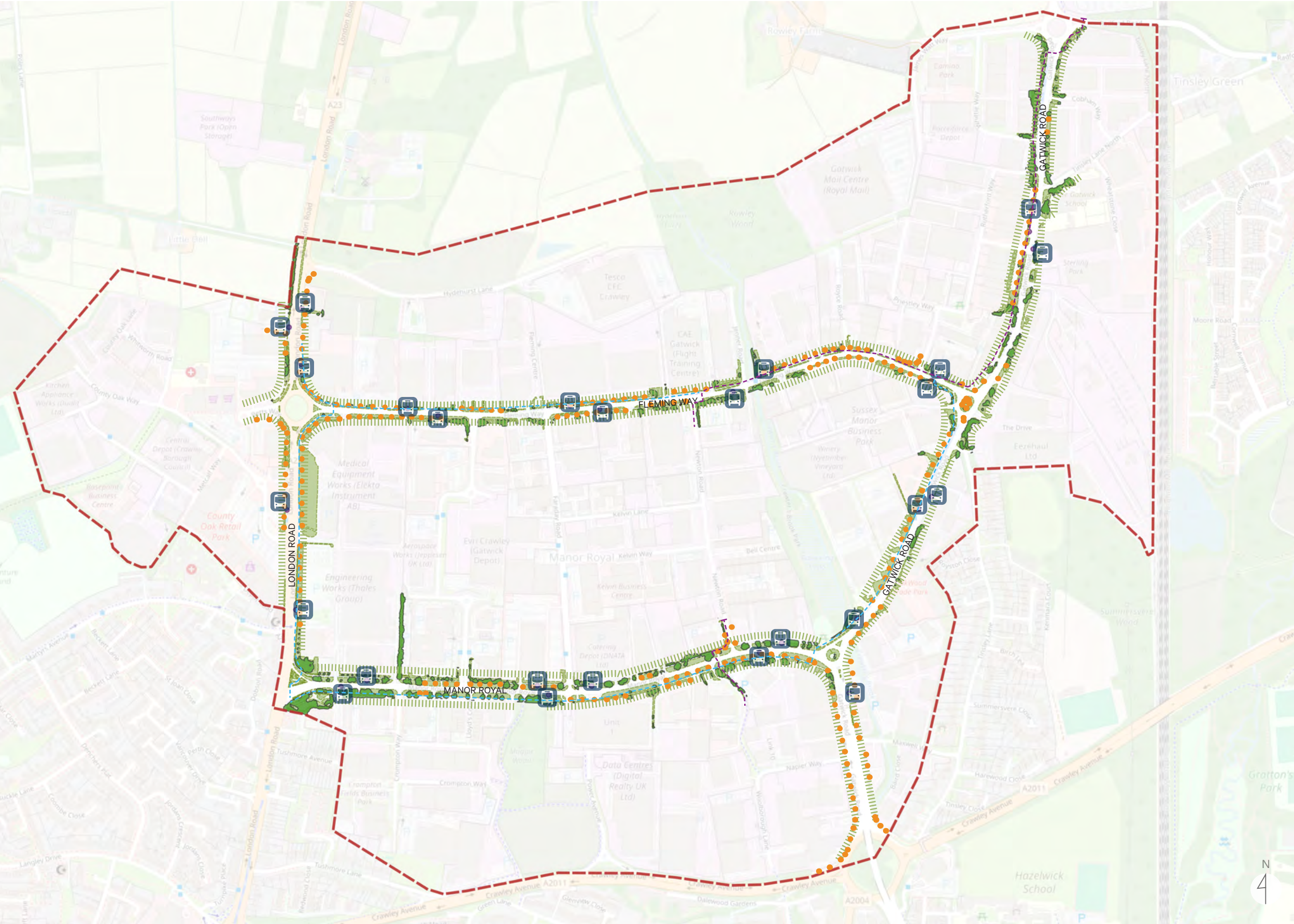
Interventions provide opportunity to change surface areas from mown amenity grass and asphalt paving to diverse mix of the vegetation and permeable paving.

Boundary treatments and areas of green space that abut the Boulevards (public or private) also play an important role in helping to re-imagine the Boulevard Loop. This includes those existing areas such as The Terrace Pocket Park, Gatwick Road Parade, Fleming Way micropark, Crawter's Brook frontages, The Bank Precinct and Magpie Wood.

Private land that also abut the Boulevards and provide opportunity to enhance the quality and connectivity of GI along these corridors. Careful and strategic consideration should be given to future development along these corridors with the GI Framework aims delivered as a priority.



Manor Royal Central Superhub bus stop is a pilot scheme showcasing what could be done to re-imagine a bus stop along the Manor Royal Boulevard. The project showcases strong partnership and commitment in delivering improved GI within Manor Royal. The area includes new planting, permeable paving and the bespoke bus stop shelter comprises of a sedum mix green roof. Further enhancements could be made through improving the adjoining areas of amenity grass to species rich meadow grasses.



- MANOR ROYAL
- NATIONAL CYCLE NETWORK ROUTE 21 ALONG BOULEVARD LOOP
- LOCAL CYCLE NETWORK ALONG BOULEVARD LOOP
- AMENITY GRASS WITH POTENTIAL TO BE ENHANCED TO SPECIES RICH MEADOW GRASS
- EXISTING TREES PROTECTED
- POTENTIAL NEW TREES (SUBJECT TO FEASIBILITY)
- FRONTAGES & BOUNDARIES TO BE ENHANCED
- EXISTING SUPERHUB BUS STOP
- FUTURE / POTENTIAL SUPERHUB BUS STOPS

CONTAINS PUBLIC SECTOR INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE V3.0'

BASE MAP AND DATA FROM OPENSTREETMAP AND OPENSTREETMAP FOUNDATION (CC-BY-SA). © [HTTPS://WWW.OPENSTREETMAP.ORG](https://www.openstreetmap.org) AND CONTRIBUTORS.

NATIONAL TREE MAP – © BLUESKY INTERNATIONAL LIMITED

RE-IMAGINING THE BOULEVARD LOOP

Challenges with enhancing the the Boulevard Loop and achieving this aim include working around existing ‘grey’ infrastructure such as underground services / utilities.

Most utilities companies have specific requirements and restrictions when it comes to planting new trees and excavations.

Care will need to be taken, with close consultation with utility providers to test feasibly and explore options. If trees are not feasibly, other options to increase the quality and diversity of appropriate species along the Boulevards will need to be explored. This includes explore opportunities for swapping amenity grass with species rich vegetation, or considering green walls, green roofs, green lamp columns as noted below.



Image of Manor Royal Road showing complexity of underground services beneath existing grass verges.

If trees are not feasible, other options for urban greening should be explored such as green walls, green light column or in ground solutions such as SuDS or mass planting.



Challenges aside, the aim is to improve quality and quantity of GI along Manor Royal Road, London Road, Gatwick Road and Fleming Way.

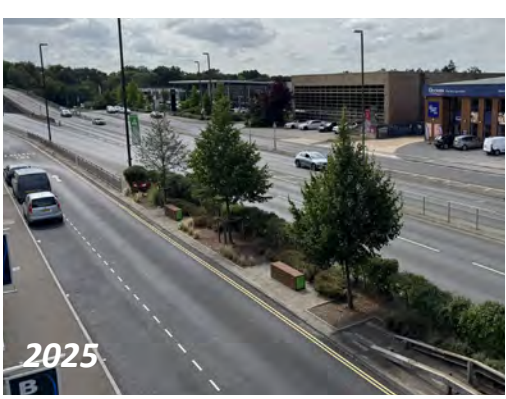
Together, these provide a loop of multifunctional and connected GI that reinforces and celebrates the landscape framework of Manor Royal.

As evidenced through enhancements made at Manor Royal Central (Superhub bus stop), Bank Precinct urban greening and the Gateway projects, opportunities can be delivered by implementing the Projects Pack. They can also be delivered through changes in the ongoing management and maintenance of assets along the Boulevards.

This GI Framework also promotes the Boulevard Loop being a signature project and initiative in its own right.

See section 4 for actions on how to deliver these opportunities.

Small changes along the Loop collectively can make a big different. Bank Precinct improvements focused on removing the ‘Grey’ infrastructure such as sealed, non permeable asphalt and steel highway style guardrails. Replacing this is designed Green Infrastructure including new trees and hedgerows. The scheme also included new public artwork, raised planters and wayfinding interventions.



Due to the high profile nature and the high potential for UGF and EcoS, this GI Framework also promotes the Boulevard Loop being a Signature Project and initiative in its own right.

Whilst delivery could be phased, the aim would be to establish a comprehensive and coherent enhancement plan for the Loop based on the principles of re-imagining the Boulevards.

This will enable a more cohesive outcome rather than piecemeal and reactive solution to enhancing these corridors.

The project could include working with land owners of adjoining properties as well as WSCC, CBC and users of the road network such as Metrobus.

The project would include detailed survey information to establish locations for improvement and so to avoid constraints.

CBC'S ADOPTED LOCAL PLAN, GREEN INFRASTRUCTURE PLAN AND GI SUPPLEMENTARY PLANNING DOCUMENT SHOWS MANOR ROYAL ROAD AS STRUCTURAL LANDSCAPING.

POLICY CH7; STRUCTURAL LANDSCAPING STRESSES THE IMPORTANCE OF THESE AREAS IN RELATION TO CHARACTER, COMMUNITY AND CULTURAL HERITAGE.



ILLUSTRATION OF A RE-IMAGINED MANOR ROYAL BOULEVARD