

# Sustainability Matters

*With Allen Scott Landscape Architecture*

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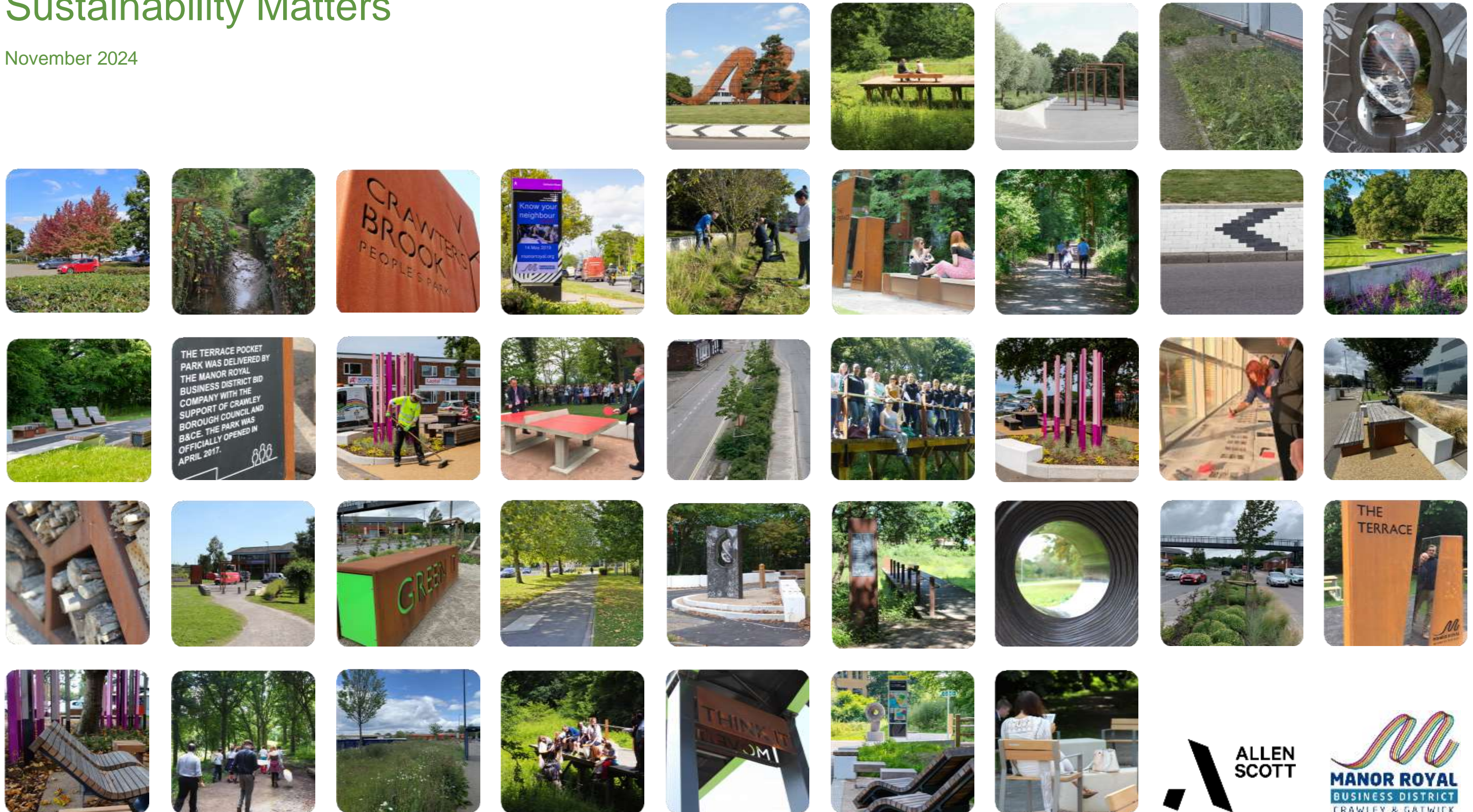
Marc Tomes  
Director & Co-owner





# Manor Royal Business Improvement District Green Infrastructure Framework Sustainability Matters

November 2024





## Sustainability Matters

- **What** is Green Infrastructure
- **Why** are we focussing on green infrastructure & biodiversity
- **What** and **where** is green infrastructure in Manor Royal
- **Where** can we improve green infrastructure & increase biodiversity
- **How** are we going to do it



### **Marc Tomes CMLI**

*Chartered Landscape Architect  
Director / Co-owner Allen Scott  
High Street Task Force Expert  
Working with Manor Royal since 2015*





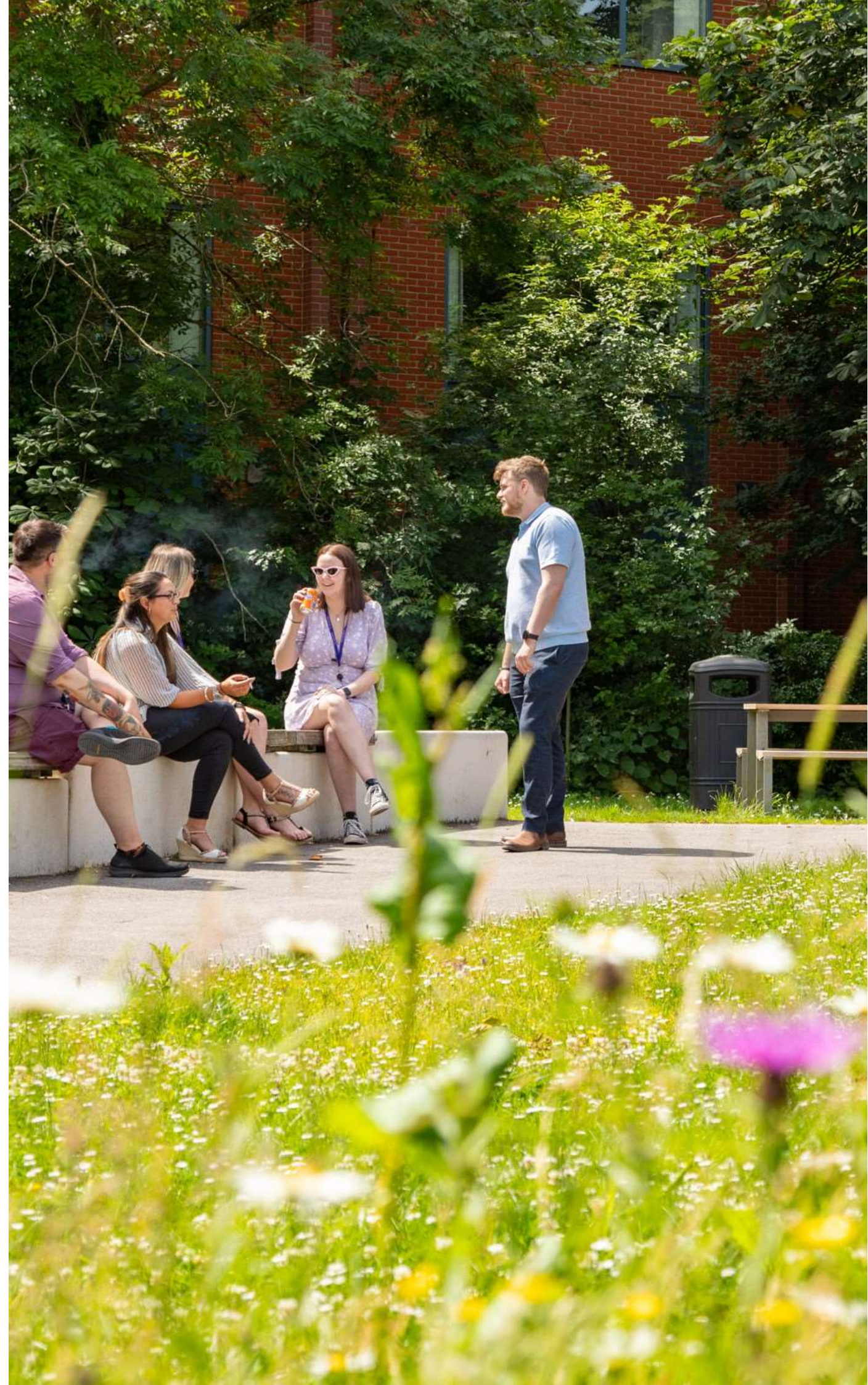
## What is Green Infrastructure

The key features of green infrastructure are that it is a network of integrated spaces and features, not just individual elements; and that it is ‘multi- functional’ – it provides multiple benefits simultaneously.

These can be to:

- support people’s mental and physical health
- encourage active travel
- cool urban areas during heat waves
- attract investment
- reduce water run-off during flash flooding
- carbon storage
- provide sustainable drainage

The extent to which green infrastructure provides these benefits depends on how it is designed and maintained, and the maturity and health of the elements (such as trees) that form it.





## What is biodiversity within GI

Biodiversity is the variety and variability of life on Earth.

Biodiversity net gain (BNG) is a way of creating and improving natural habitats.

BNG makes sure development has a measurably positive impact ('net gain') on biodiversity, compared to what was there before development.

Biodiversity strategies includes GI as a complementary component.

However, GI assets may not necessarily be beneficial for biodiversity.

The combination of BNG with GI planning helps create multifunctional spaces that are beneficial for both people and nature.



IMAGE FROM SUSSEX WILDLIFE TRUST



## What do we hope to do

- Enhance biodiversity, character & community awareness;
- Protect the important areas of existing woodland & celebrate these as ecological oasis for people to connect with nature;
- Increase appropriate habitats & vegetation;
- Manage surface water drainage in a sustainable way;
- Seek to use more sustainable sourced materials within public realm enhancement projects; and
- Integrate biodiversity benefits into management & maintenance regimes throughout Manor Royal.

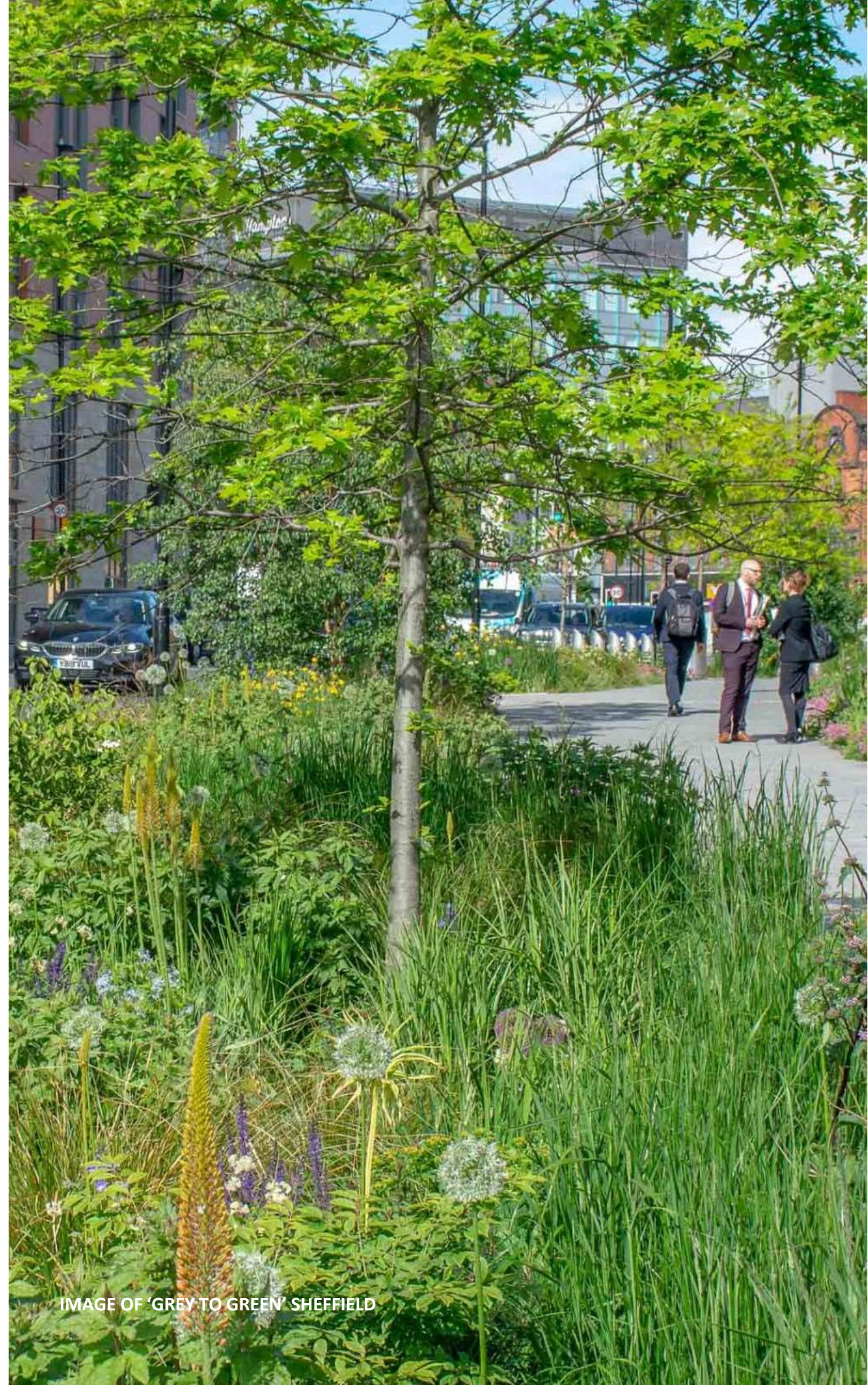


IMAGE OF 'GREY TO GREEN' SHEFFIELD



# What the BID is already doing

## PROJECTS PACK 2023 -2028

### Green initiatives




 GREEN CORRIDORS

LESS GREY - MORE GREEN: ECOLOGY / BIODIVERSITY CORRIDORS WITH OPPORTUNITIES FOR ALTERNATIVE GRASS CUTTING / WILDFLOWER MEADOW PLANTING / INCREASE IN SPECIES FOR BUGS AND BUTTERFLIES / MORE SPACE FOR CYCLING, WALKING AND PUBLIC TRANSPORT.

 GREEN STEPPING STONES

INCREASE IN APPROPRIATE VEGETATION TO HELP PROVIDE ECOLOGY / BIODIVERSITY STEPPING STONES

 GREEN / BLUE STREETS

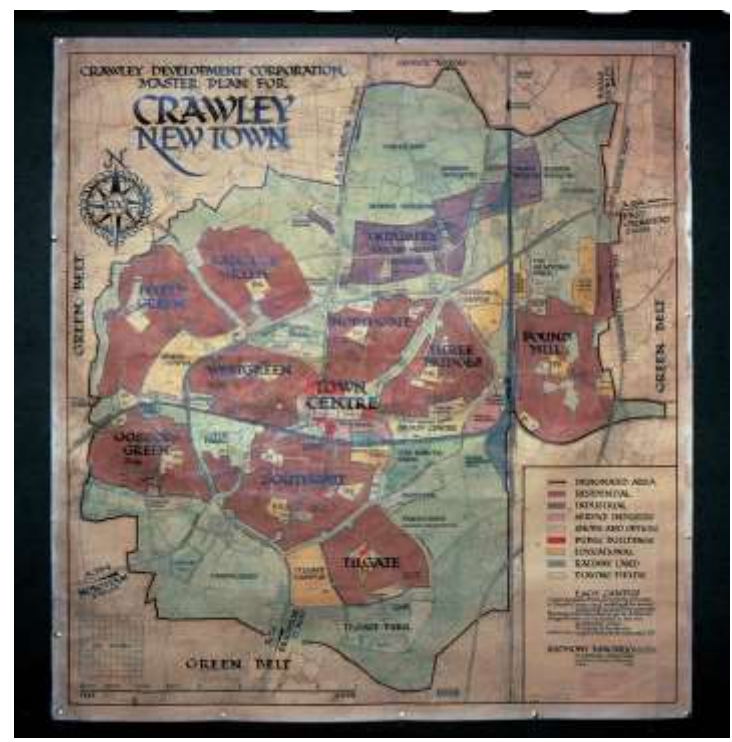
POTENTIAL PRIORITY LOCATIONS TO SHOWCASE SUSTAINABLE DRAINAGE SYSTEMS (SUDS) APPROACH TO SURFACE WATER DRAINAGE MANAGEMENT

 GREEN SPACES

IMPORTANT SPACES FOR THE PROTECTION OF ECOLOGY / BIODIVERSITY WITH POTENTIAL FOR PEOPLE TO CONNECT DIRECTLY WITH NATURE



# Landscape structure - 'GI foundation'





# Why this is important for Manor Royal



Before the BID



With the BID



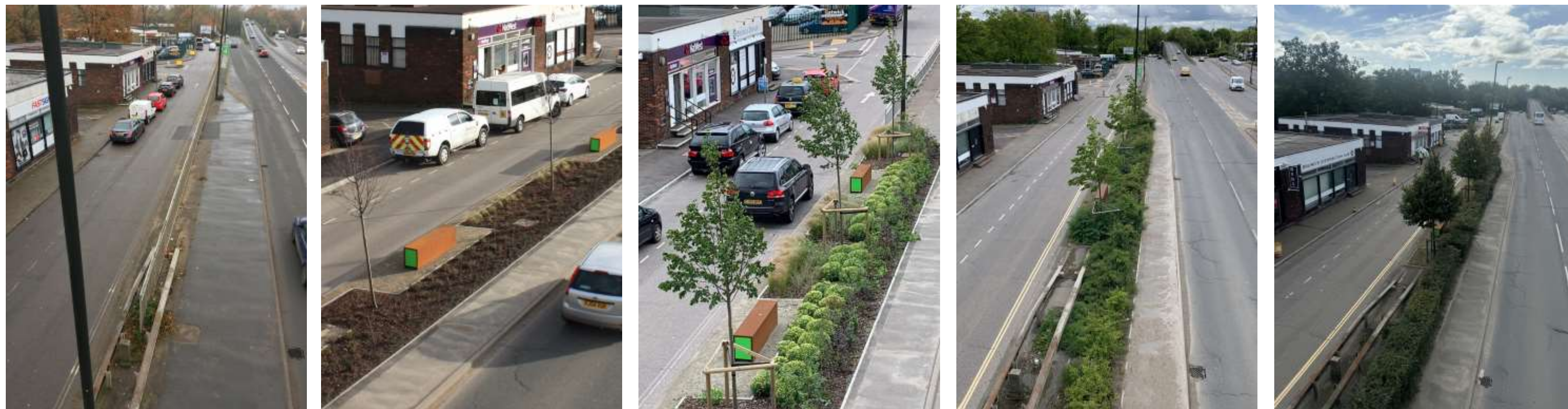


# Turning grey to green - every little bit helps





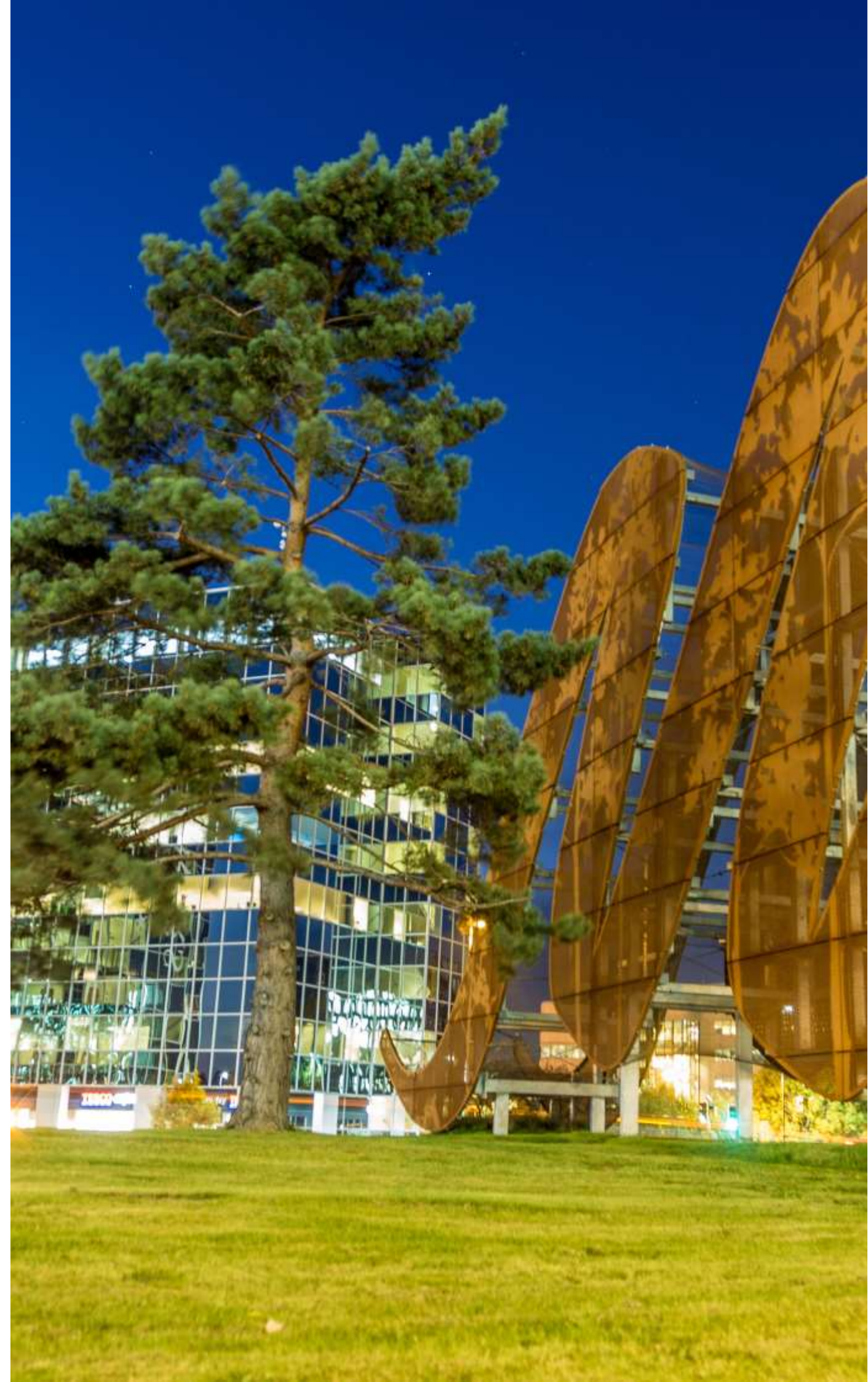
## Turning grey to green - sometimes takes time



*The extent to which green infrastructure provides benefits depends on how it is designed and maintained, and the maturity and health of the elements that form it.*



# Green Infrastructure - often takes care



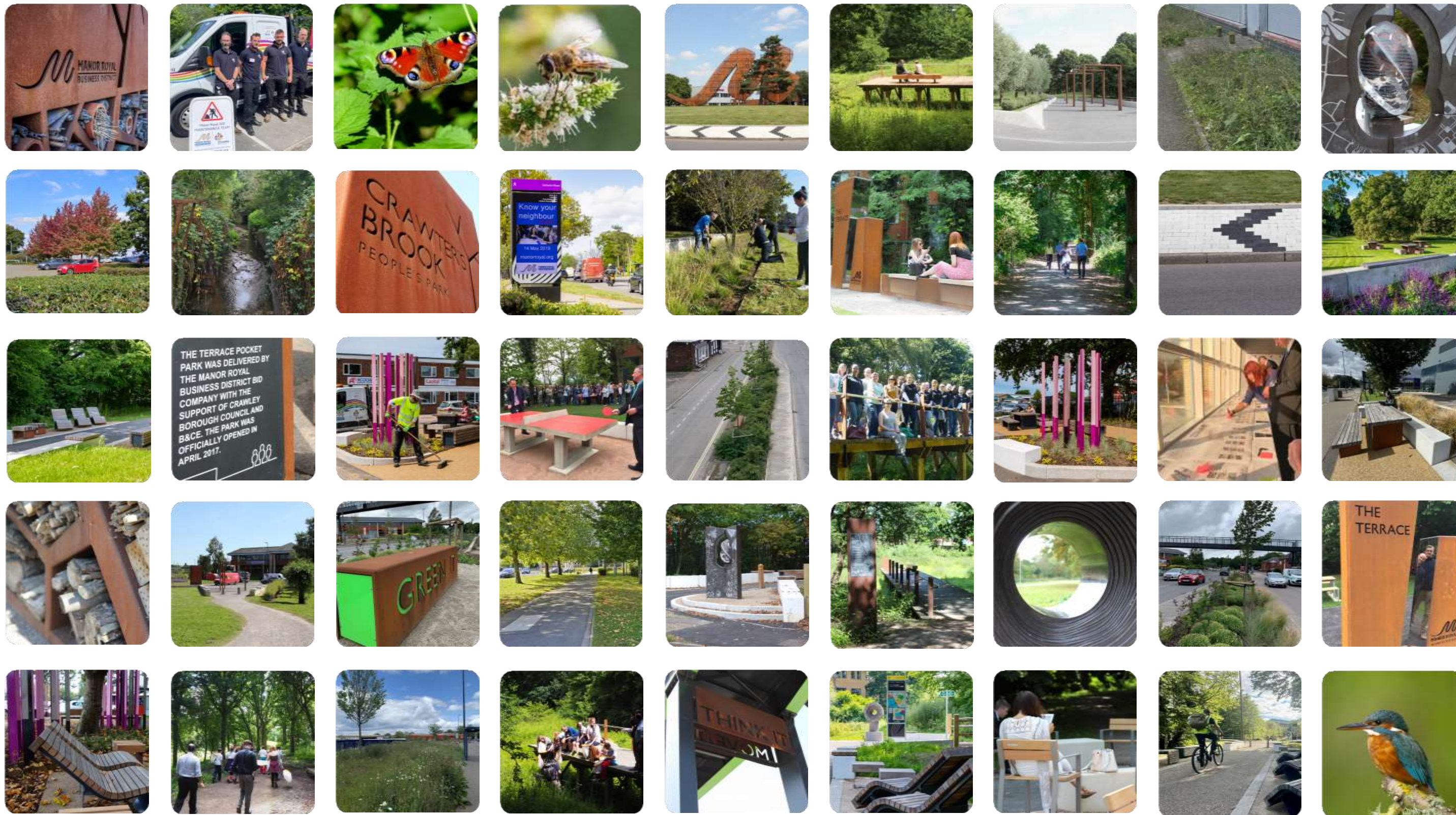


# Green Infrastructure - still under threat

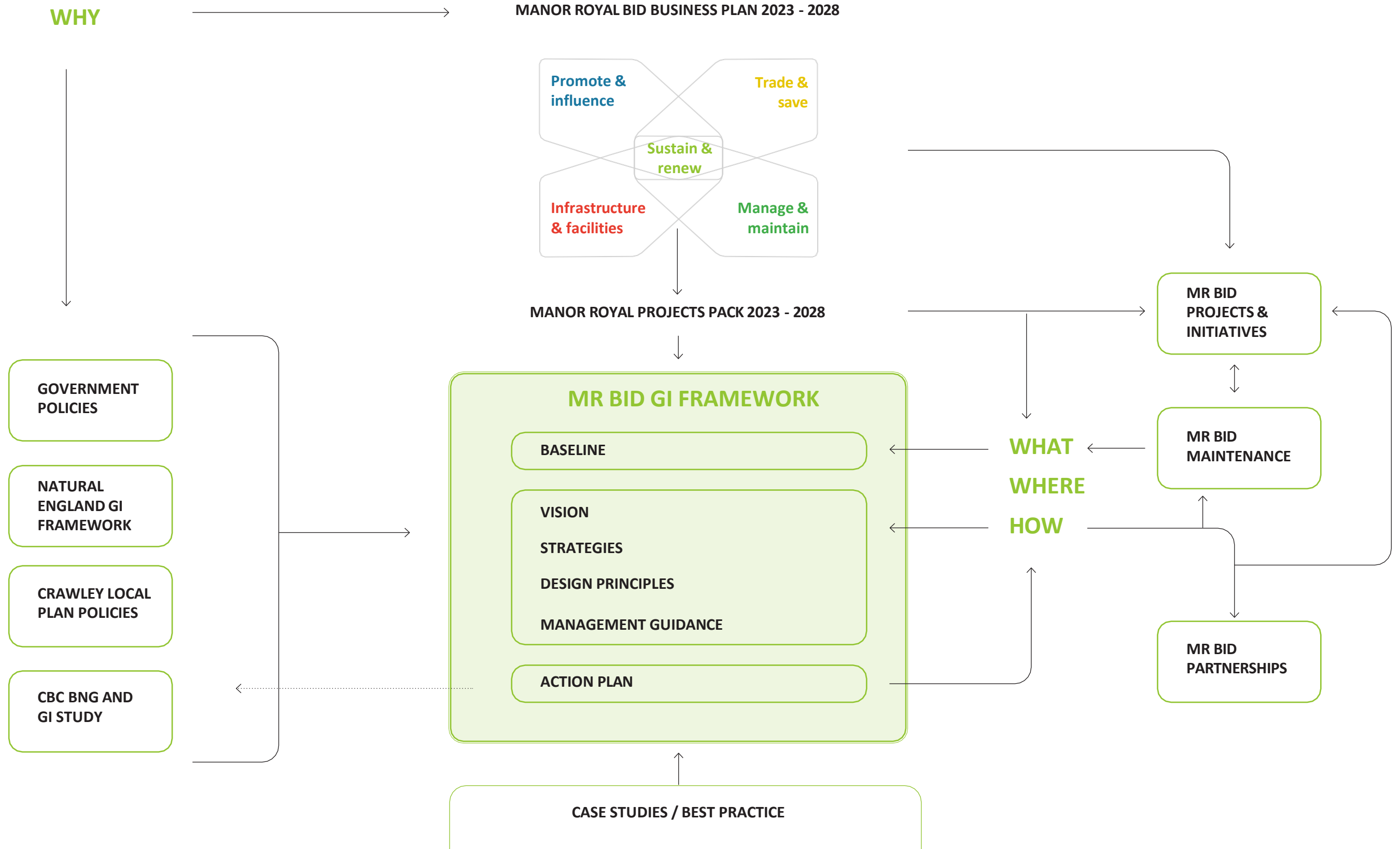




# Green Infrastructure - still under threat - so are the multiple benefits

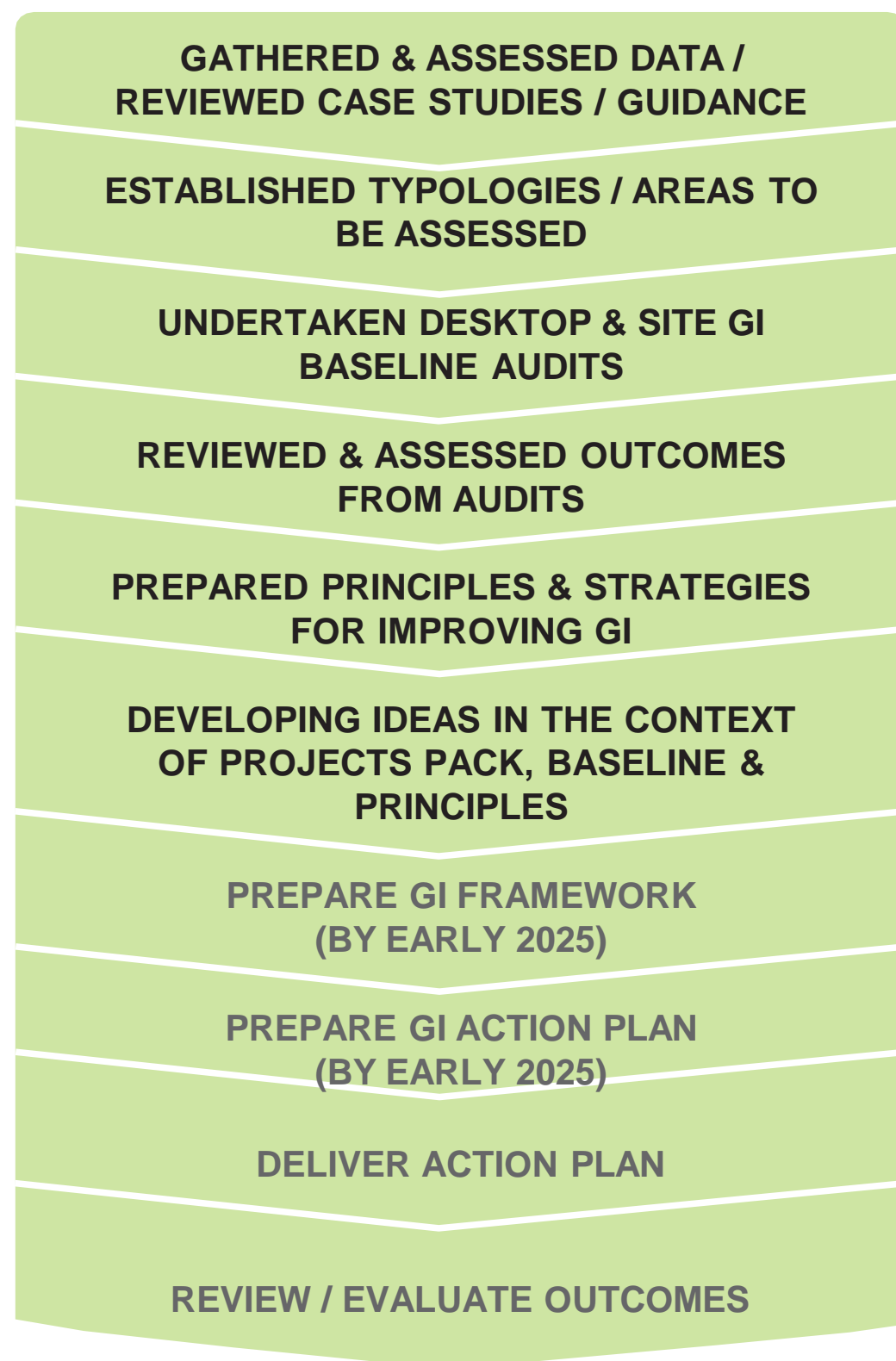








## What we have been doing





## Green Infrastructure (GI) within Manor Royal:

For the purpose of this project GI falls into the following broad categories:

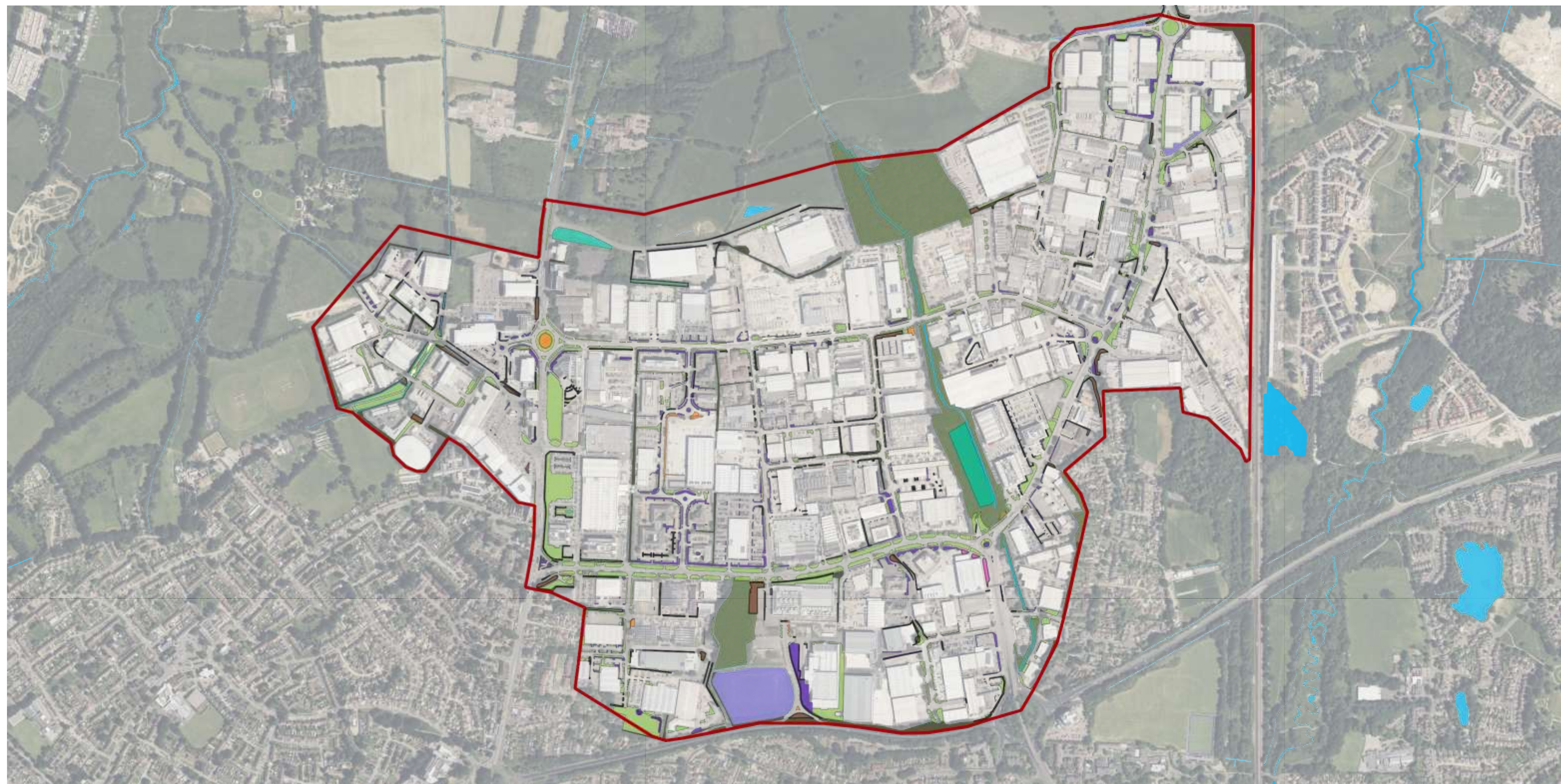
- GI within the public realm of Manor Royal, typically on public land such as within public parks or on highway land.\*
- GI that contributes to the public realm of Manor Royal, typically on private land such as along boundaries with the public realm or areas visually or physically accessible to the public.\*

\*Tree Canopy Cover has been calculated based on data available that covers both public and private.





# Green Infrastructure - stock take



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# Green Infrastructure - stock take



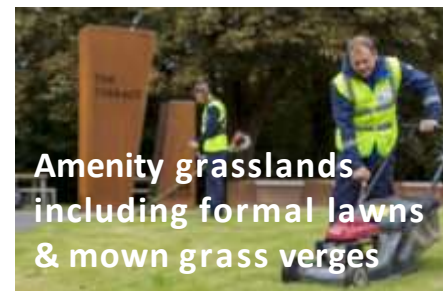
Woodland



mature & veteran trees



linear mature native vegetation



Amenity grasslands including formal lawns & mown grass verges



Flower rich perennial & herbaceous planting



Species rich meadow grass



Hedge planting (including linear planting or mature shrubs)



Native hedgerows



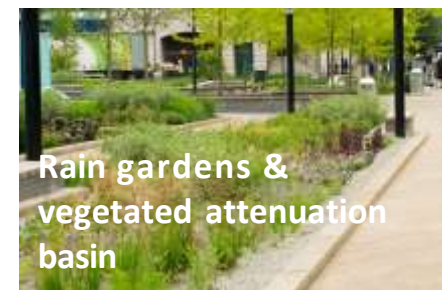
Amenity shrub & ground cover planting



Scrub



Wetland & semi-natural open water



Rain gardens & vegetated attenuation basin



Open swales & unplanted detention basins



Water features (unplanted & chlorinated)



Insect hotels



Green facades & modular living walls (if part of public realm)



Partially sealed & semi-permeable paving



Open aggregate & granular paving



Green roofs (if part of public realm)



Open water

20 Types identified for existing and potential GI

42.50ha of GI Surface Types mapped so far



## Green Infrastructure - stock take

**240ha**

of land within  
Manor Royal

**42.50ha**

of GI Surface Types  
mapped so far

**27.68%**

of which is  
amenity grass

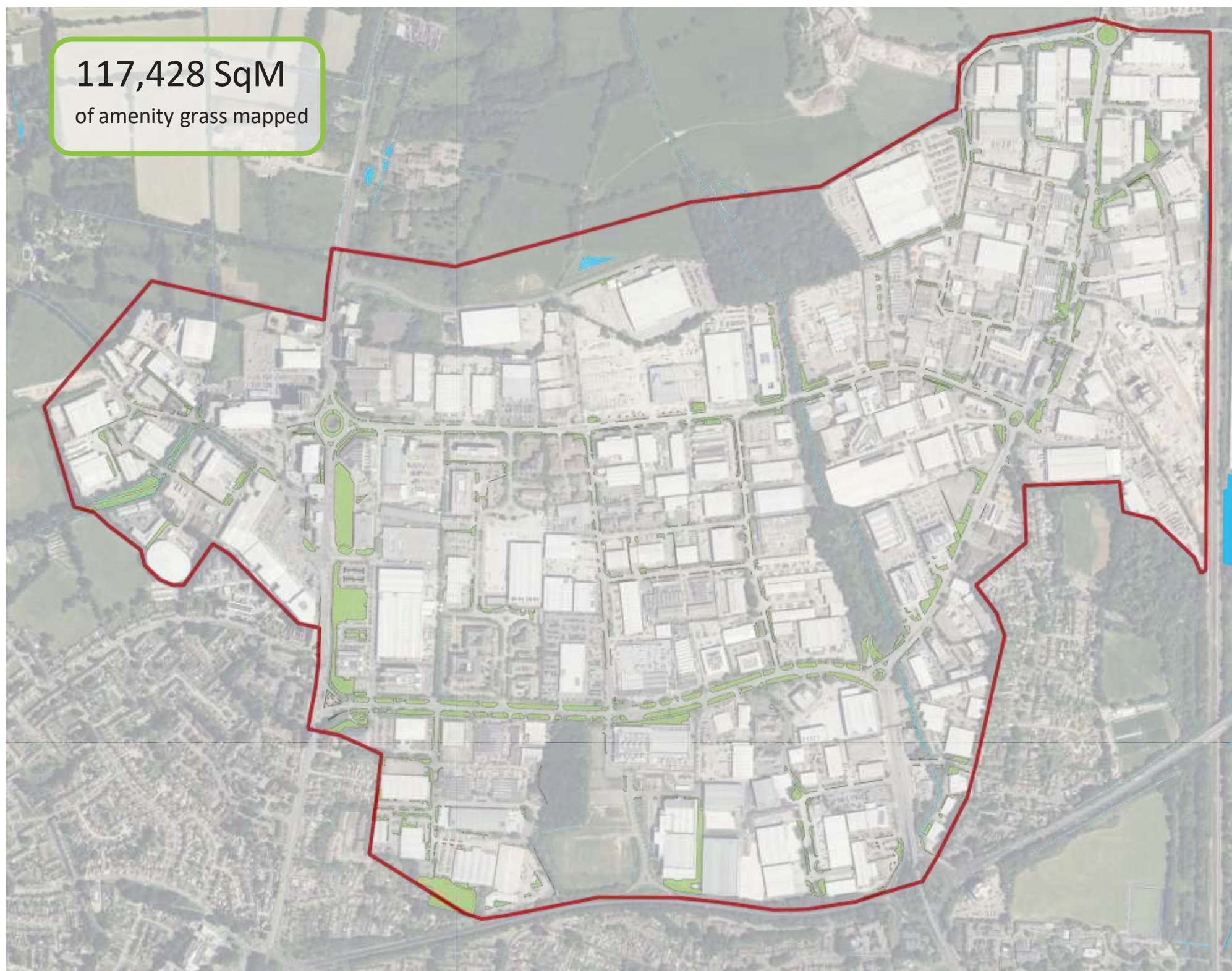
**0.77%**

is species rich  
meadow grass

**8.6%**

Amenity shrubs &  
ground cover

**117,428 SqM**  
of amenity grass mapped



**11.12%**

is recorded as  
Linear Mature  
Native Vegetation

**0.04%**

Flower rich perennial  
herbaceous planting

**2.04%**

Hedge Planting

**1.19%**

Native Hedgerows

**27.4%**

of which is  
woodland



## GI Network Types - Vegetated Boundaries

**240ha**

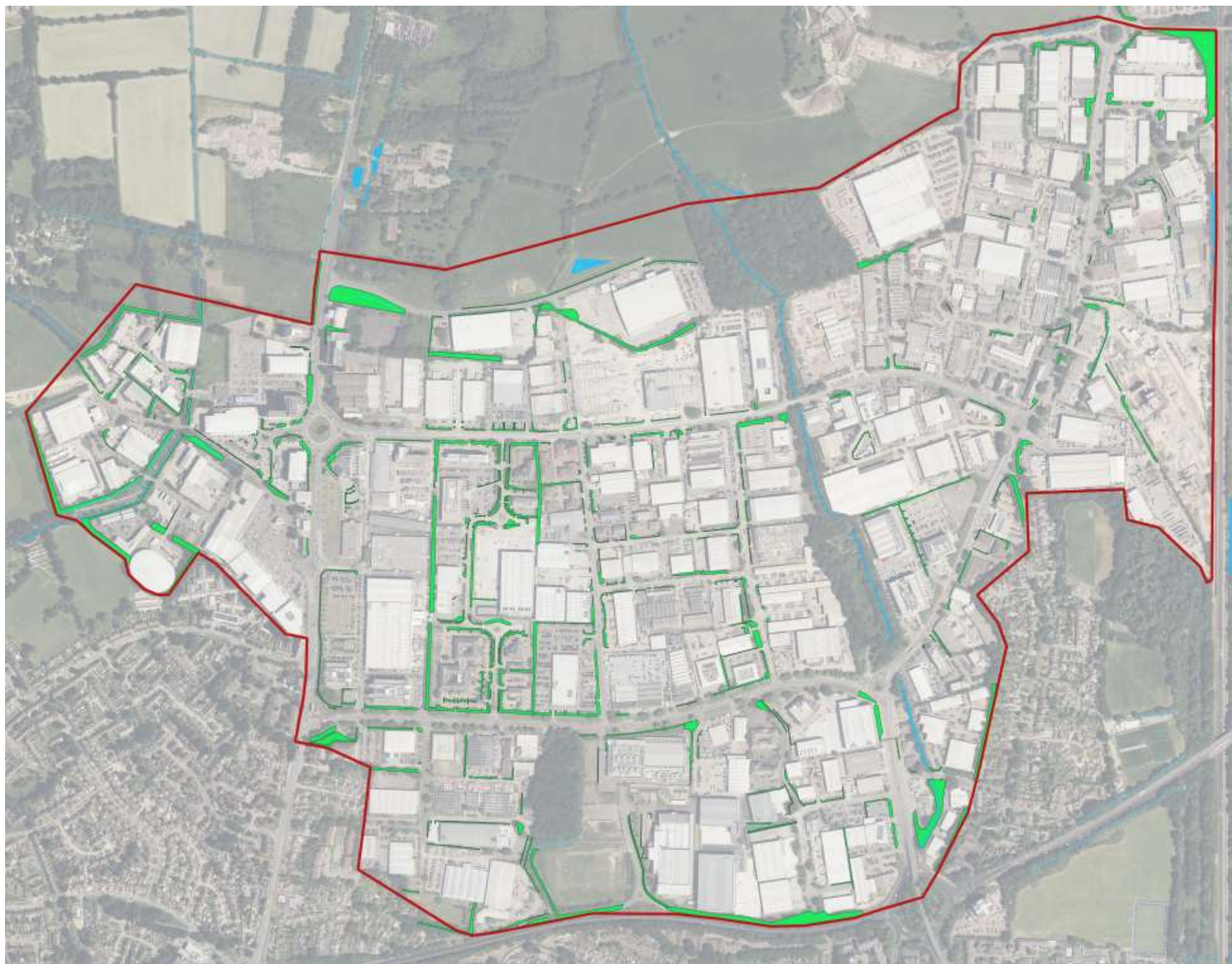
of land within  
Manor Royal

**42.50ha**

of GI Surface Types  
mapped so far

**? %**

of which is  
vegetated  
boundaries





## GI Network Types - Vegetated Boundaries

**240ha**

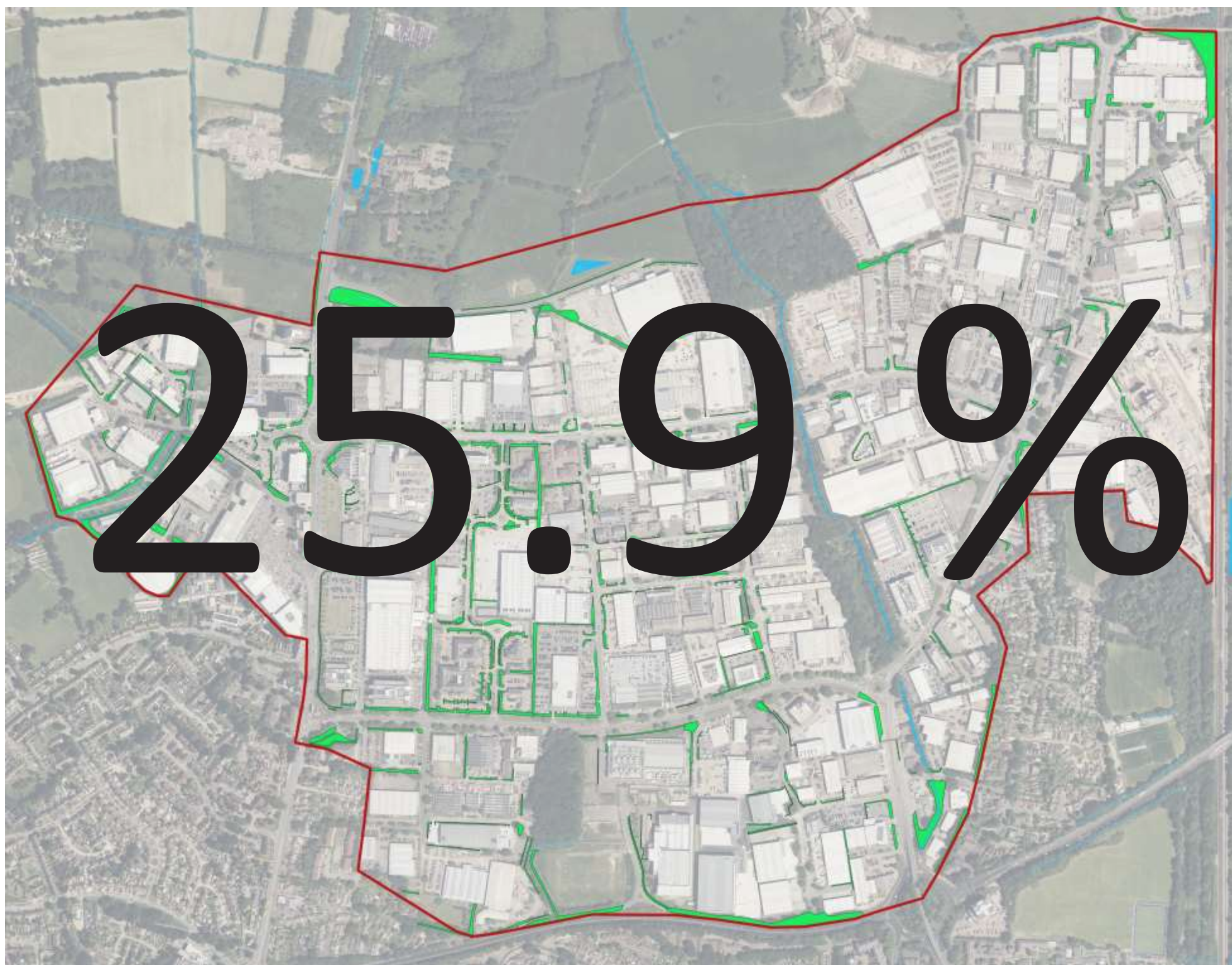
of land within  
Manor Royal

**42.50ha**

of GI Surface Types  
mapped so far

**25.9 %**

of which is  
vegetated  
boundaries





# GI Network Types - Vegetated Boundaries

240ha

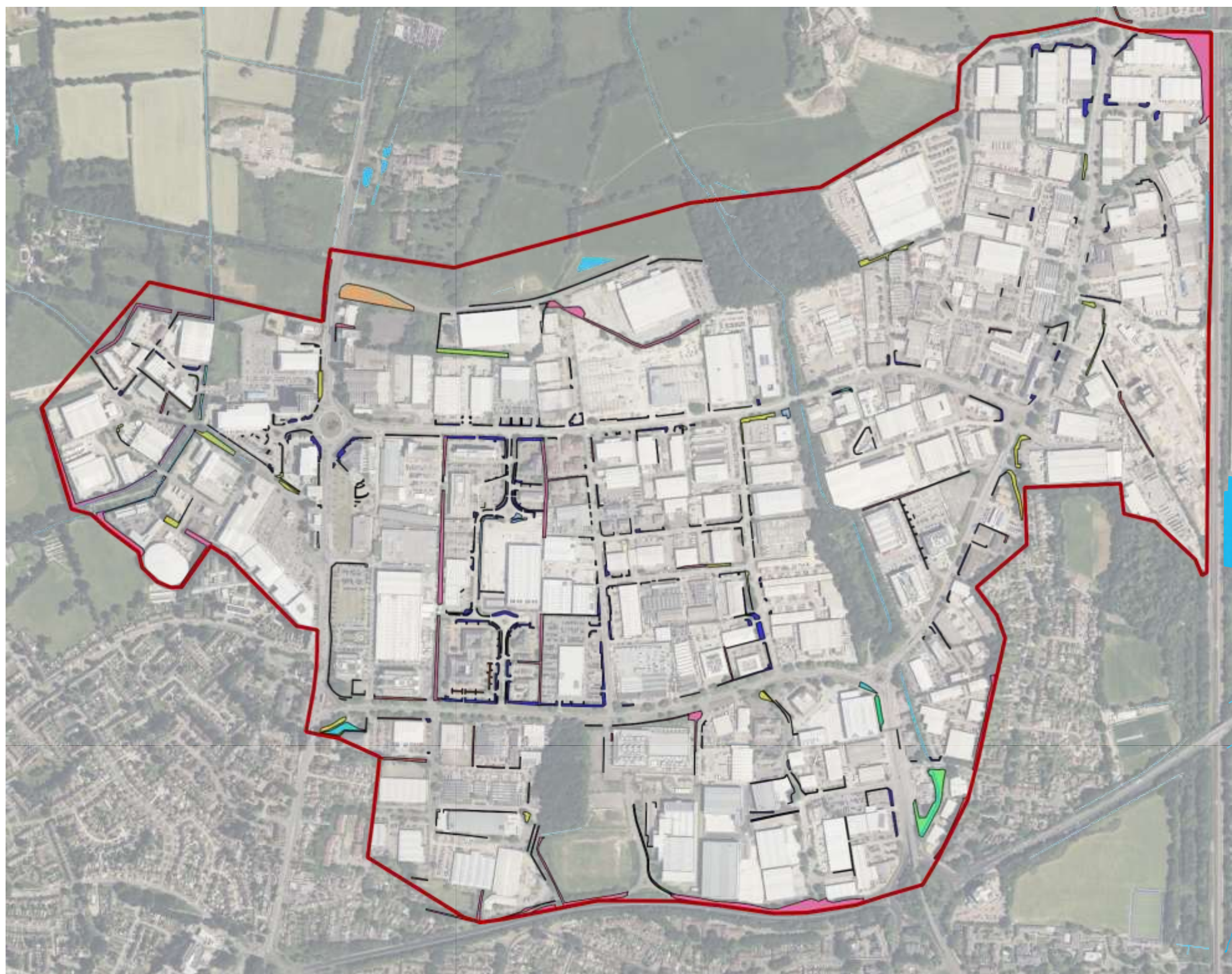
of land within  
Manor Royal

42.50ha

of GI Surface Types  
mapped so far

25.9 %

of which is  
vegetated  
boundaries





## GI Network Types

### Tree canopy cover

*All trees and their canopy cover provide an important part of the GI Network. This network includes individual trees, groups of trees and areas of woodland. For the purpose of this project the overall tree canopy cover includes all mapped / recorded trees whether they fall within public or private land.*

**16.4%**

England's average canopy cover in towns and cities (source i-tree)

**26%**

Canopy cover in Crawley (source Crawley Borough Council)

**?**

Canopy cover in Manor Royal





## GI Network Types

### Tree canopy cover

*All trees and their canopy cover provide an important part of the GI Network. This network includes individual trees, groups of trees and areas of woodland. For the purpose of this project the overall tree canopy cover includes all mapped / recorded trees whether they fall within public or private land.*

**16.4%**

England's average canopy cover in towns and cities (source i-tree)

**26%**

Canopy cover in Crawley (source Crawley Borough Council)

**10%**

Canopy cover in Manor Royal





# GI Network Types - Tree Canopy Cover

240ha

of land within  
Manor Royal

10%

Canopy cover in  
Manor Royal  
(source Bluesky  
GIS data)





# So what?

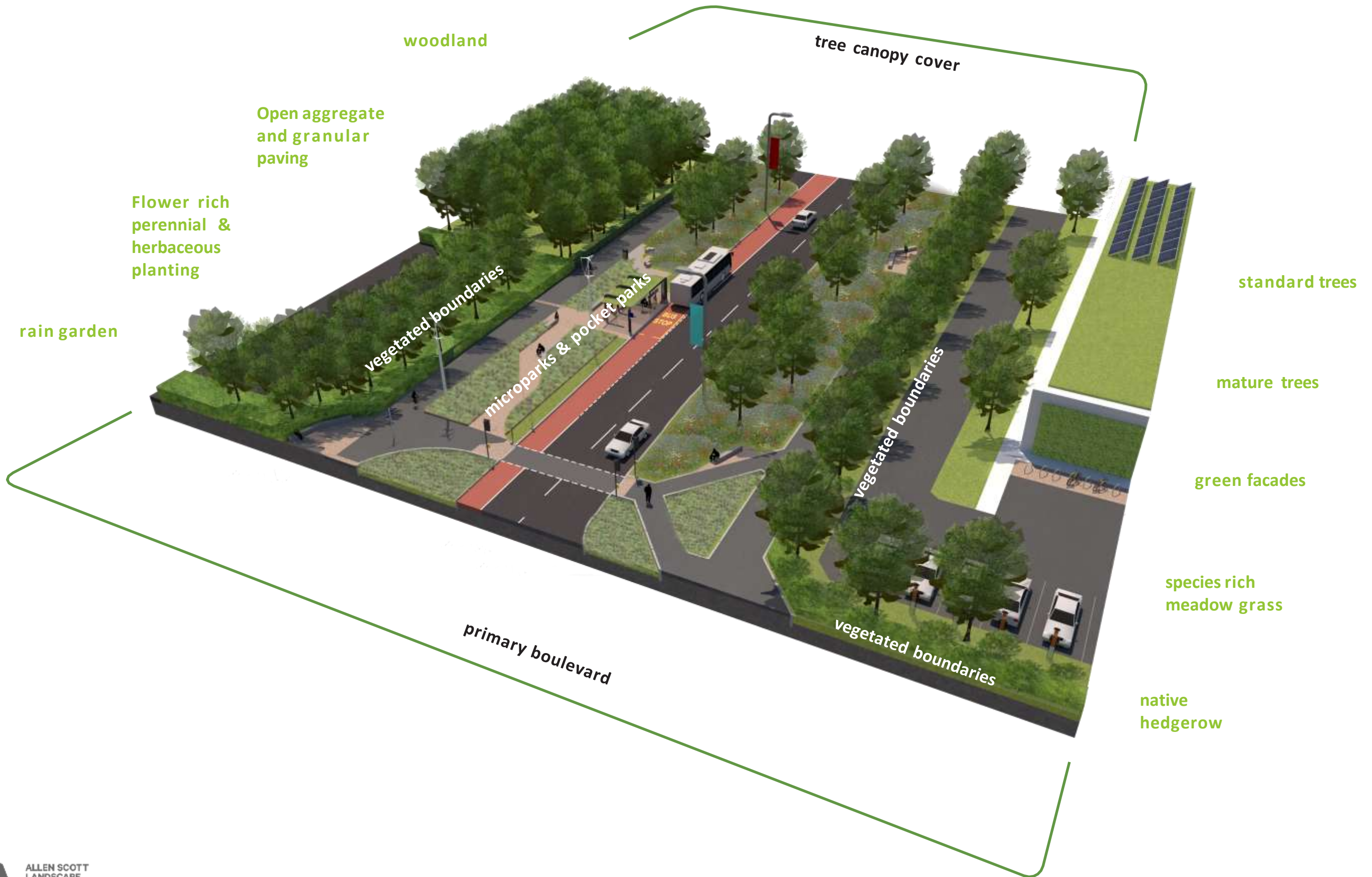
What do we do with this information?

How can it help us?



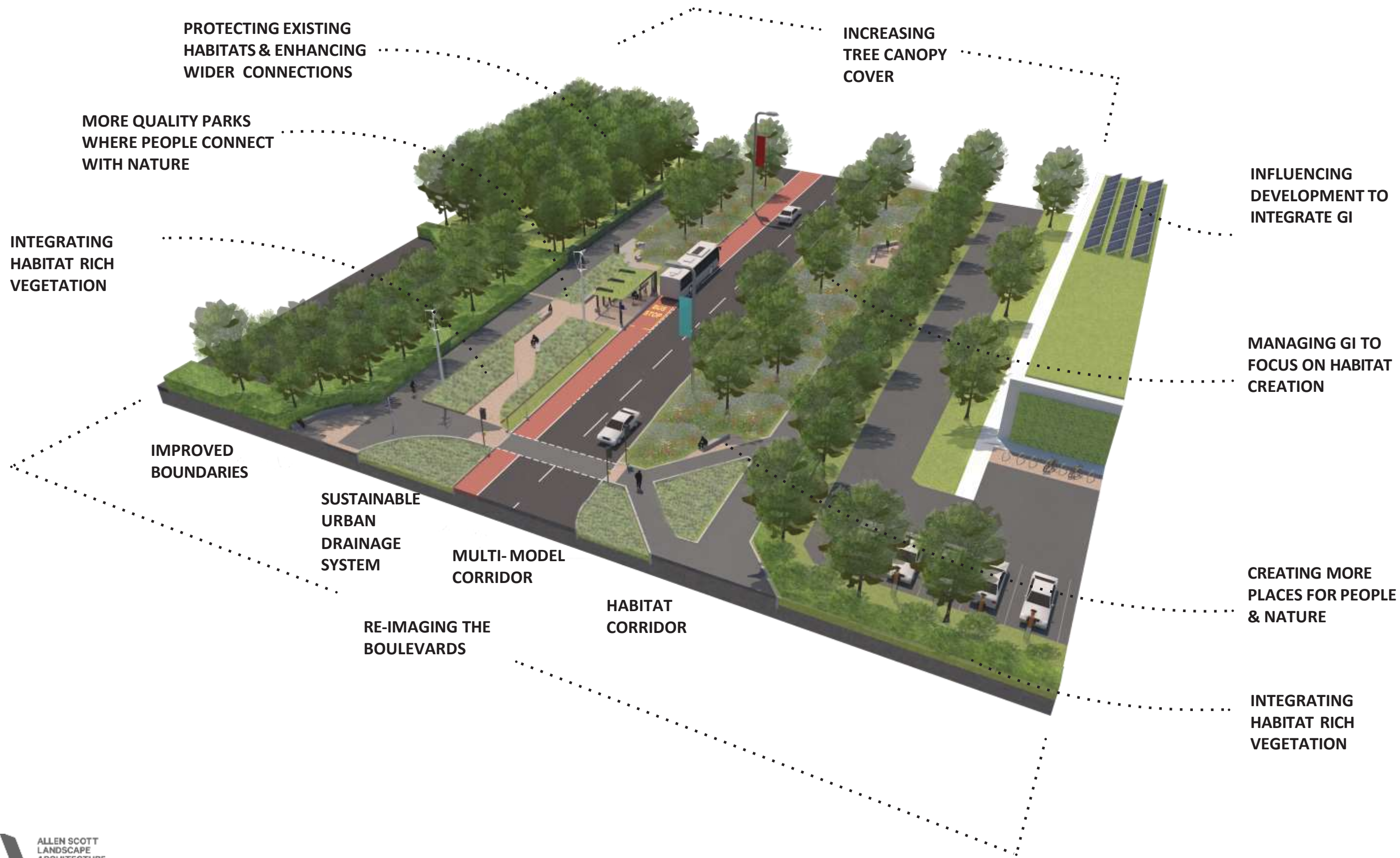


# GI Framework for the future





# GI Framework - emerging ideas





## GI Framework - emerging vision

The vision is to **protect, improve & maintain quality green infrastructure across Manor Royal for us now & for the future.**

This can be delivered by:

Increasing the tree canopy cover to be above England's average.

Protecting & enhancing the quality & benefits for people & nature along Crawters Brook.

Re-imagining Manor Royal's Boulevards.

Increasing habitat rich vegetation throughout Manor Royal.

Connecting to wider habitat corridors & links beyond Manor Royal.

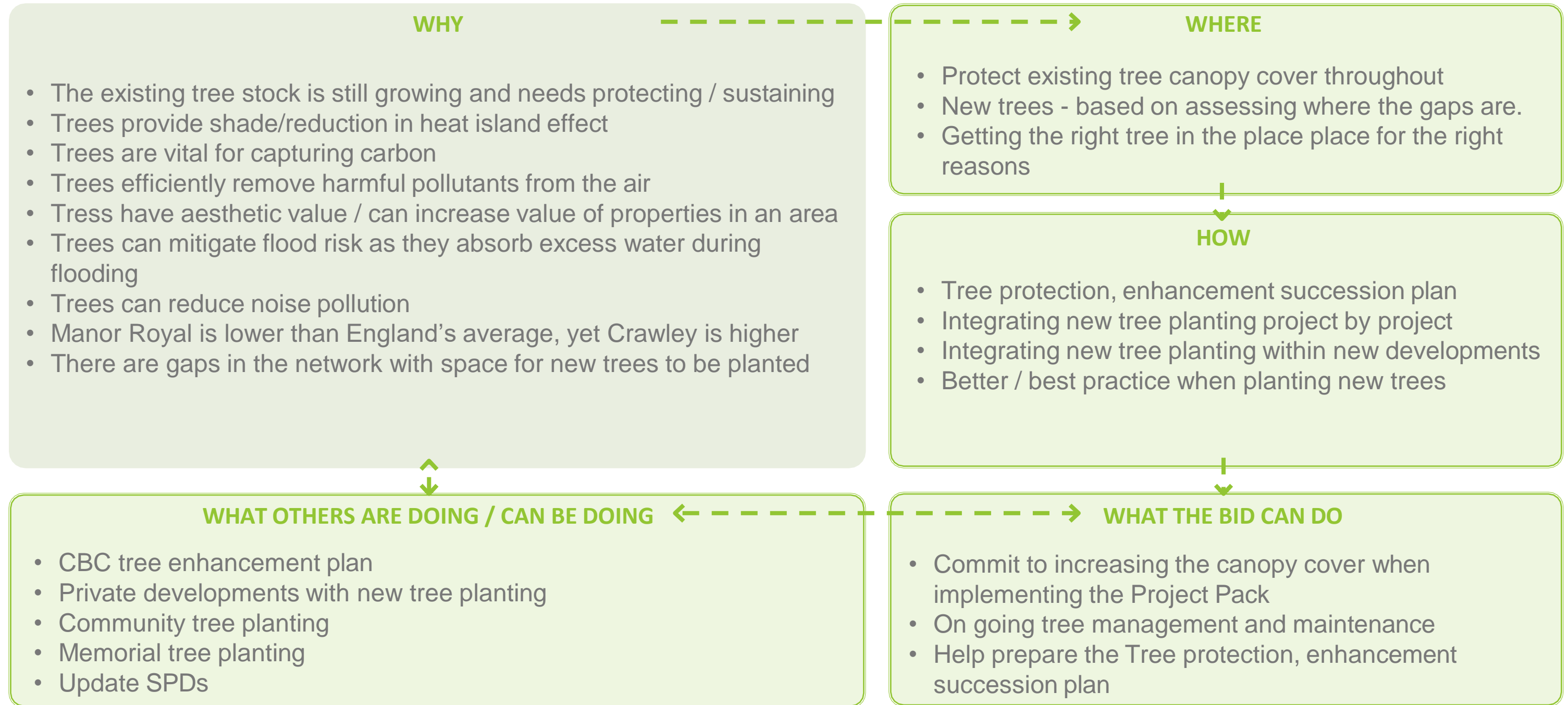
WORK IN PROGRESS





## GI Framework - emerging aims

Increasing tree canopy across Manor Royal to above the England average.





# GI Framework - emerging aims

240ha

of land within  
Manor Royal

TARGET

20% ?

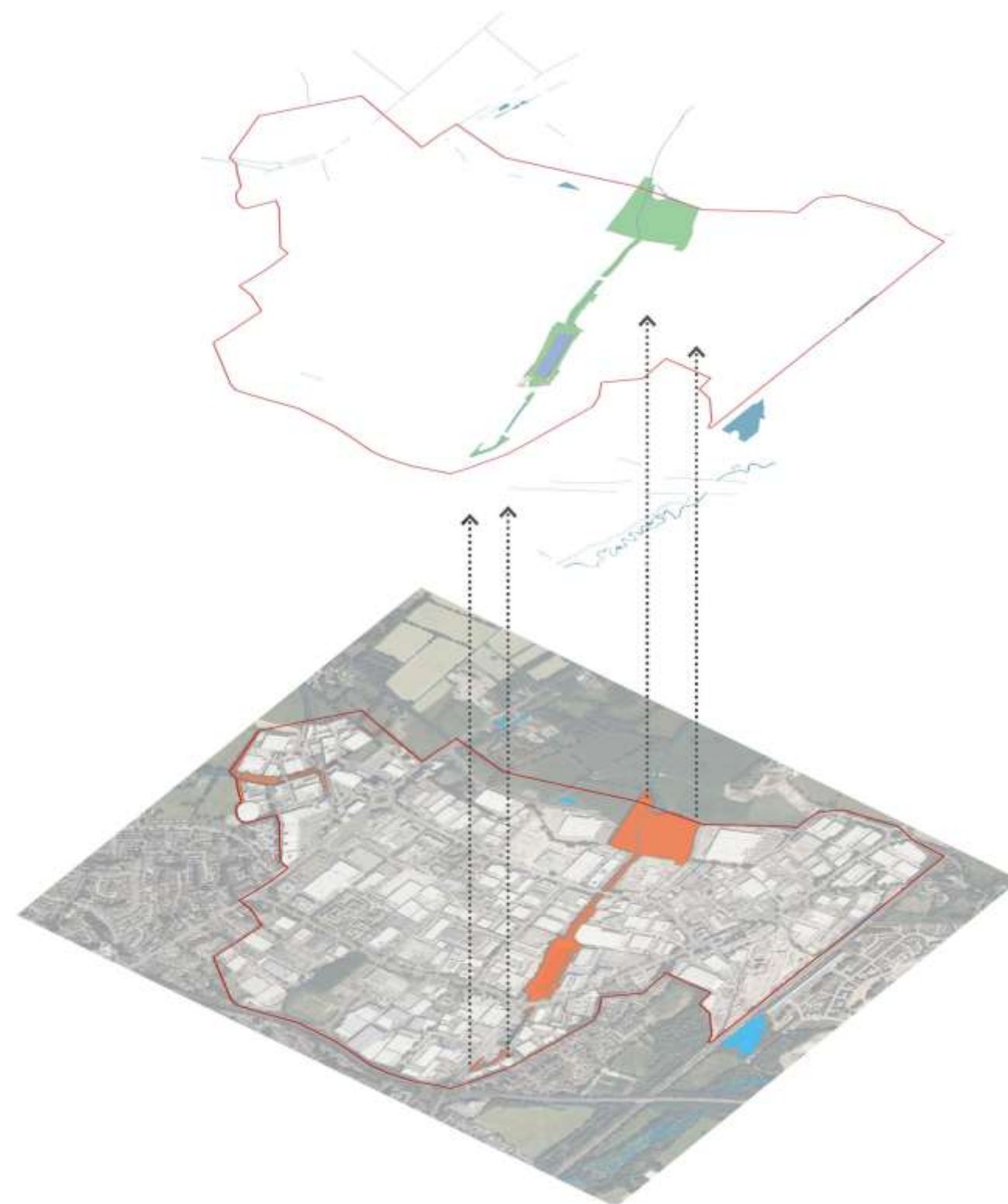
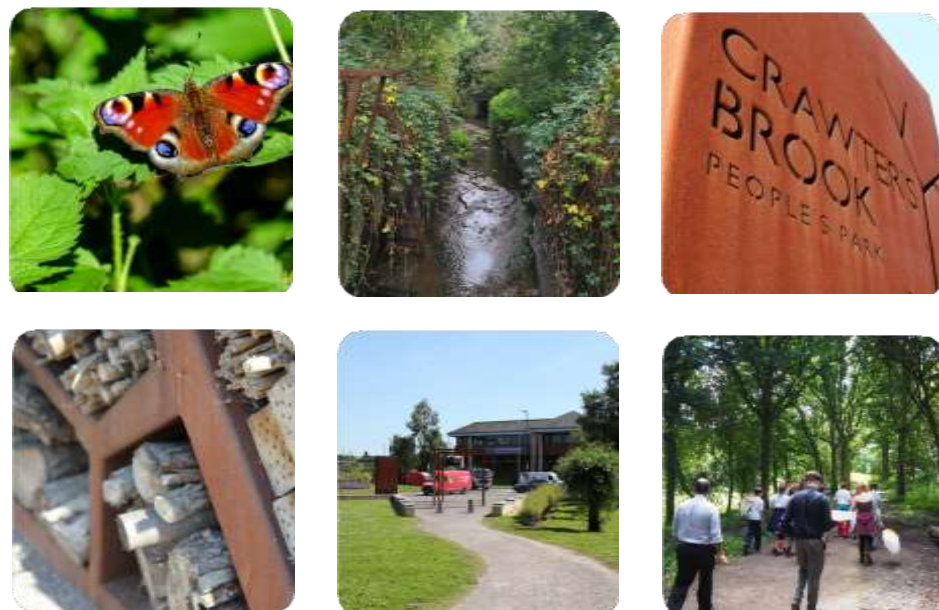
Canopy cover in  
Manor Royal





# GI Framework - emerging aims

## Protecting and enhancing Crawters Brook





# WORK IN PROGRESS

## GI Framework - emerging aims

Re-imagining the Boulevards.





## GI Framework - emerging aims

### Increasing habitat rich species throughout Manor Royal

#### WHY

- Compared to 40+ species in meadows, amenity grass might have just a handful, resulting in an estimated average 80% less biodiversity.
- 97% of pollinators benefit from diverse wildflower habitats
- Wildflower rich areas are excellent at capturing carbon. Some root systems can grow as deep as 1.5m; a healthy meadow can sequester up to 3 metric tonnes per hectare per year – regularly mown amenity grasslands are estimated to be 30-50% less effective compared to species rich meadows.
- More complex root systems also absorb water and can help reduce surface runoff and soil erosion
- Increased species diversity adds resilience

This may require taking a step back / re-thinking management principles / allowing natural succession and 'time'. i.e. start from the baseline rather than ripping out and starting again.





## GI Framework - emerging aims

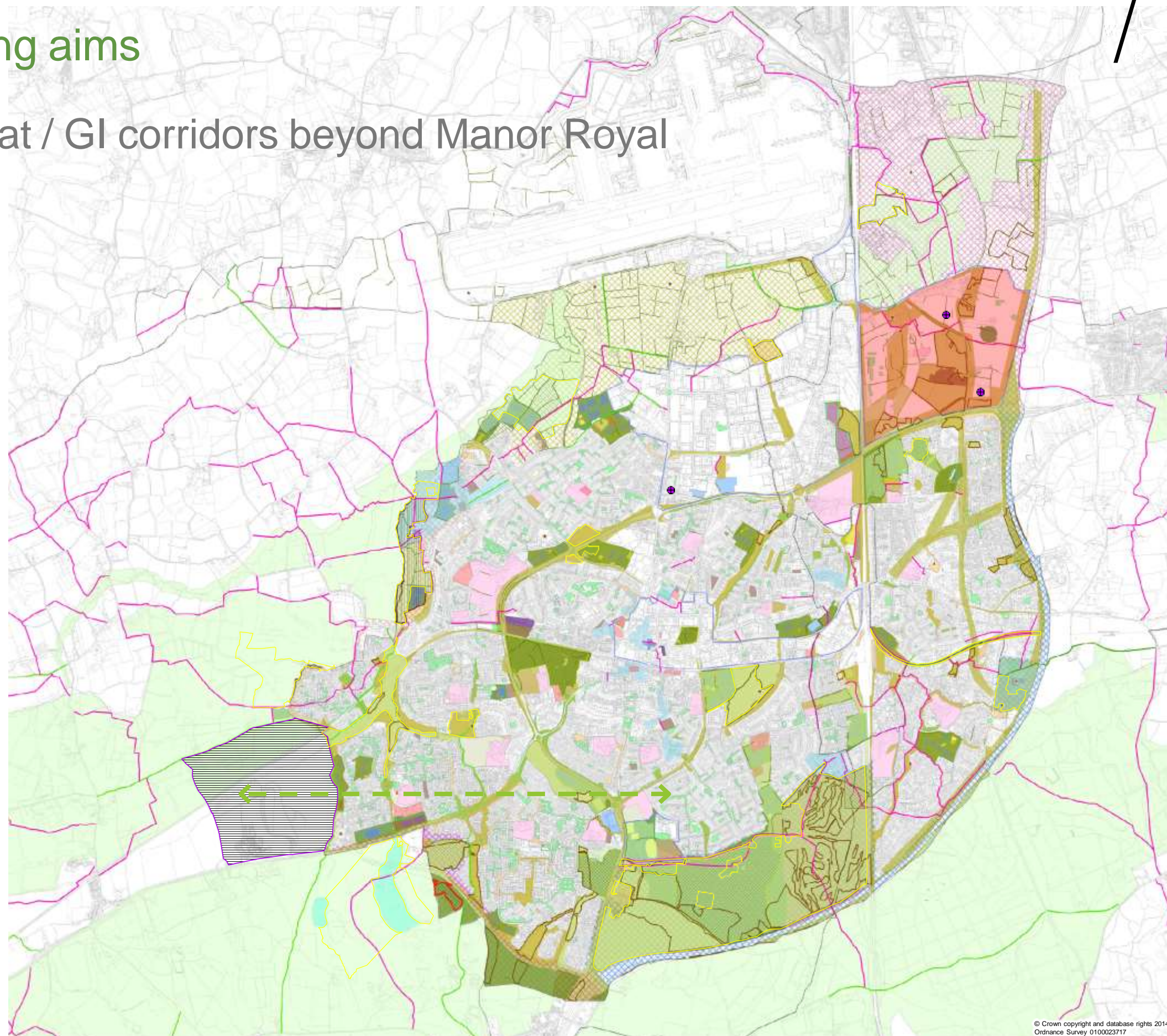
### Connecting to wider habitat / GI corridors beyond Manor Royal

#### WHAT OTHERS ARE DOING

- CBC GI Assets & Opportunities Strategy
- CBC BNG improvements / potential
- Local Plan Policies
- Local wildlife areas
- Community initiatives
- Updating SPDs
- Tree planting plan
- Route 21 National Cycleway

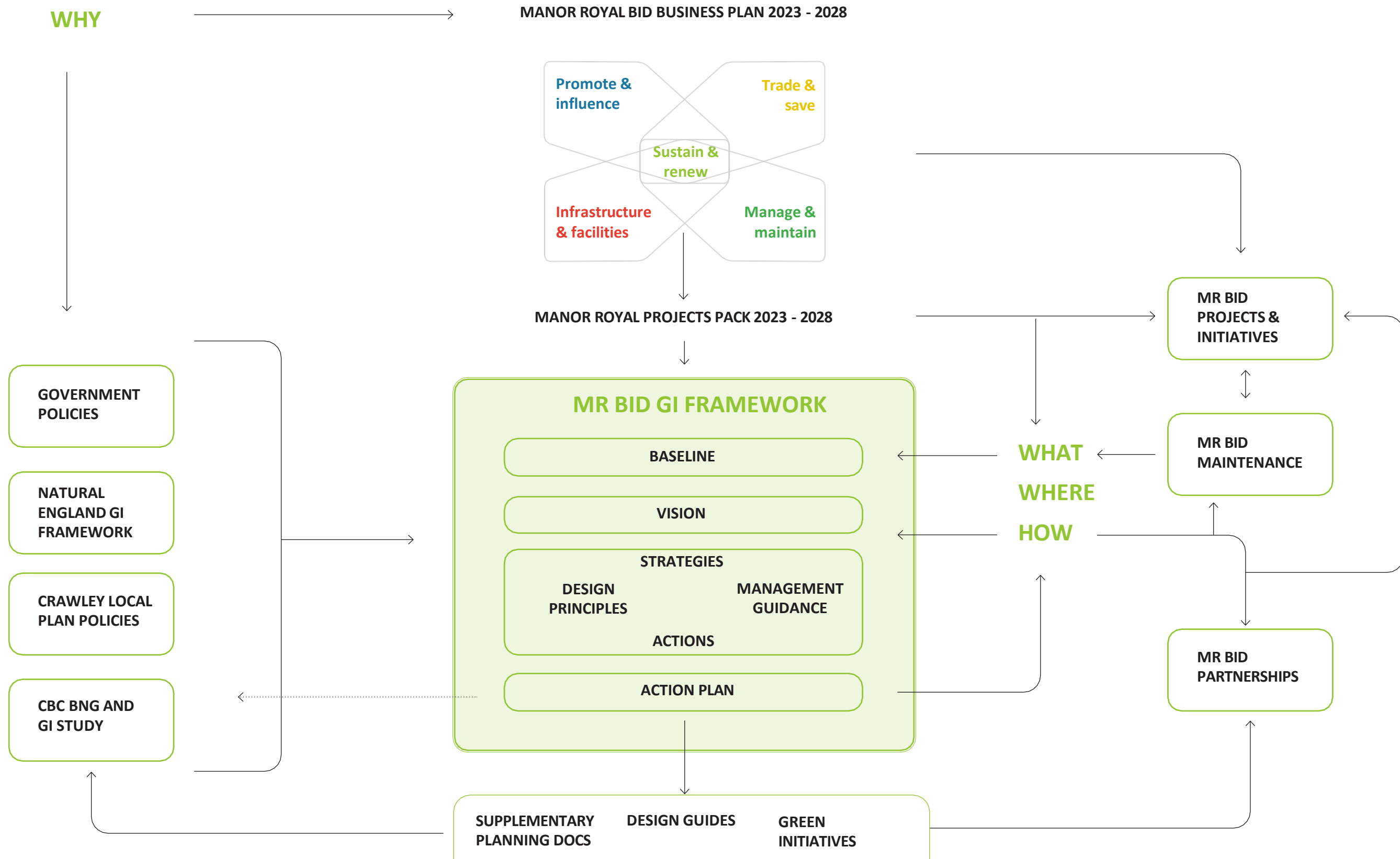
#### WHAT THE BID CAN DO

- Joining the dots
- Aligning outcomes from the Projects Pack
- Steer BNG to benefit Manor Royal and deliver the GI Framework
- Champion and demonstrate the benefits from good GI.
- Input into SPDs and policies



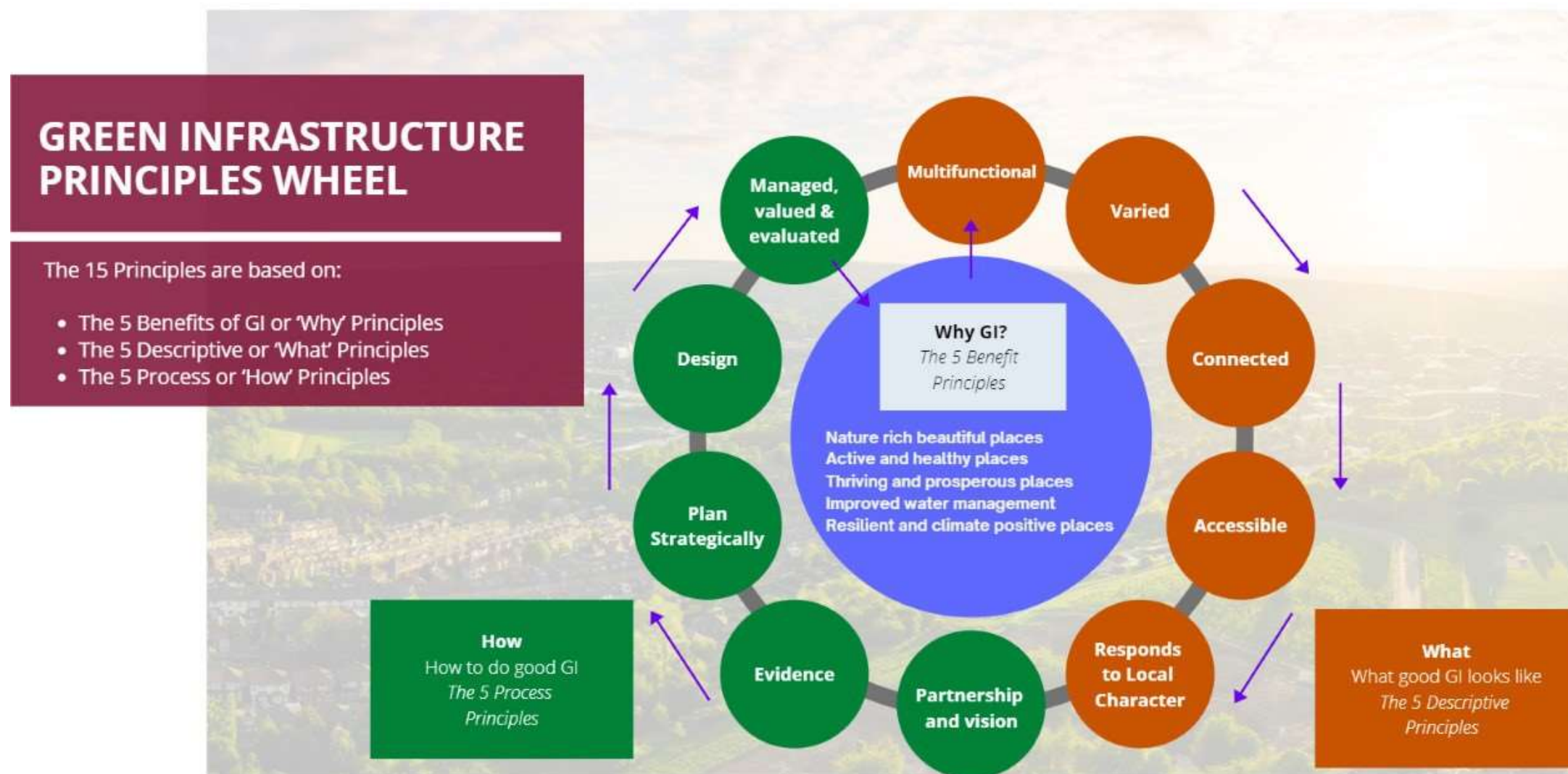


# WORK IN PROGRESS





## Emphasis of the Framework









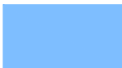






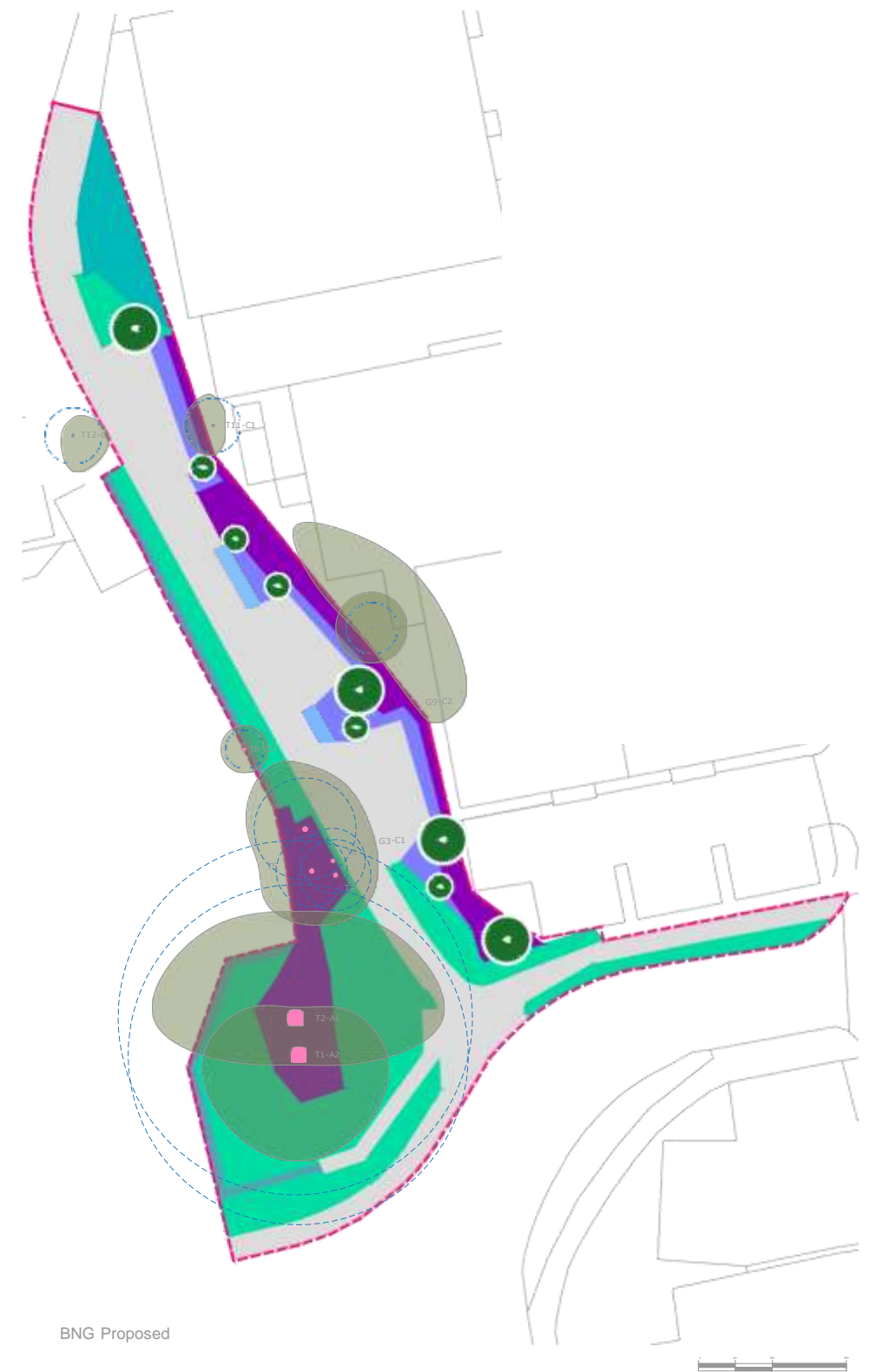
*“The emphasis in the Framework on the multiple benefits of GI can help ensure nature delivers wider benefits for people as well as biodiversity”*



# What the BID is already doing

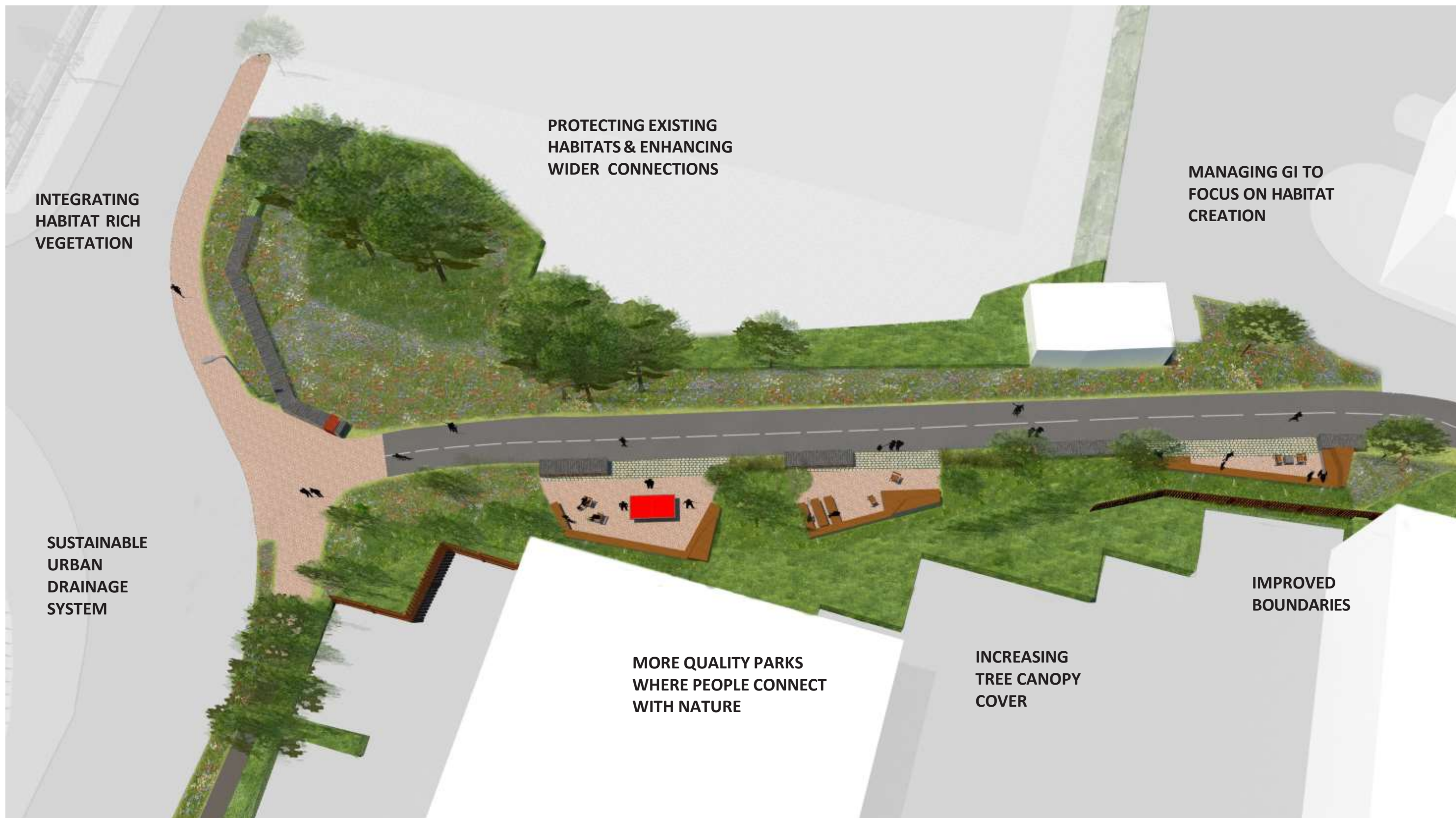
## LEGEND

-  Modified Grassland
-  Other Neutral Grassland
-  Bramble Scrub
-  Mixed Scrub
-  Tall Forbs
-  Built Linear Feature
-  Ruderal and Ephemeral
-  Self Sown Trees
-  Semi Ornamental
-  Native Hedge
-  Existing Trees within the Site Boundary
-  Proposed Trees
-  Proposed Specimen Shrubs





# What the BID is already doing - Woolborough Lane





## What the BID is already doing - Woolborough Lane



*“The emphasis in these proposals on the multiple benefits of existing & new GI can help ensure nature delivers wider benefits for people as well as biodiversity”*



## What the BID is already doing - Woolborough Lane



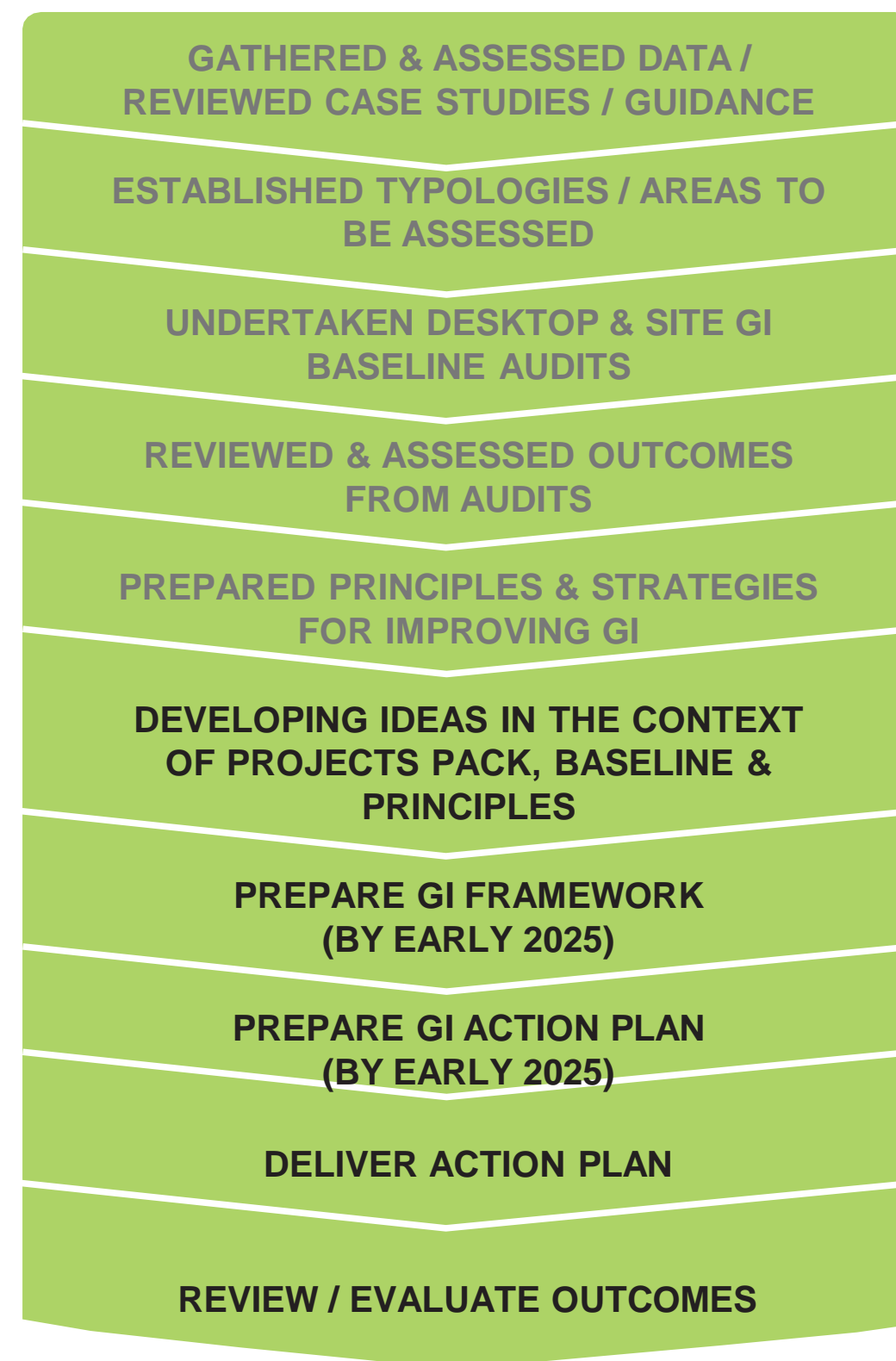
*“Bit by bit, the network of Green infrastructure is protected & enhanced.  
So are the multiple benefits these valued assets can bring to people & nature”*



# WORK IN PROGRESS

## Next Steps:

- Ecology input in the context of BNG and Urban Greening Factor
- Further engagement with key stakeholders
- Designing (opportunities / ideas etc)
- Developing an action plan (a list)
- Further consultation / campaign about the final GI Framework – probably early 2025
- Integration into delivery of the Projects Pack
- Implementation (subject to funding etc)
- Review and evaluate





Thank you

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