



Welcome

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Sustainable Urban Drainage Systems (SUDs)

David Abercrombie – Taylor Wimpey

What We Will Cover Today

- Why Me?
- About Taylor Wimpey
- What are SuDS?
- Sustainable Techniques
- SUDs From a Planning Perspective
- SUDs From an Engineering Perspective
- SUDs on Taylor Wimpey Sites
- Long Term Management
- Questions and Answers

Why Me?

- Working in Planning and Environment all my career.
- Since 2002 actively involved in Ouseburn.
- National Suds Working Group.
- Worked closely with multiple stakeholders.
- Bioblitz 2017.
- Technical Advisor to Tyne Rivers Trust.
- Still Major Developer & Land Owner.

Why You?

- Who is under 25?
- Who is over 50?
- How Many Engineers, Planners, Ecologists other professional?
- Any Landowners?
- Any Developers or potential developers?
- Any Councillors?
- How many community interested parties?

About Taylor Wimpey

Who we are

- Taylor Wimpey is a UK-focused residential developer, operating at a local level from 22 regional businesses across the UK, and we also have operations in Spain., we employed, on average, 5,140 people across the UK.

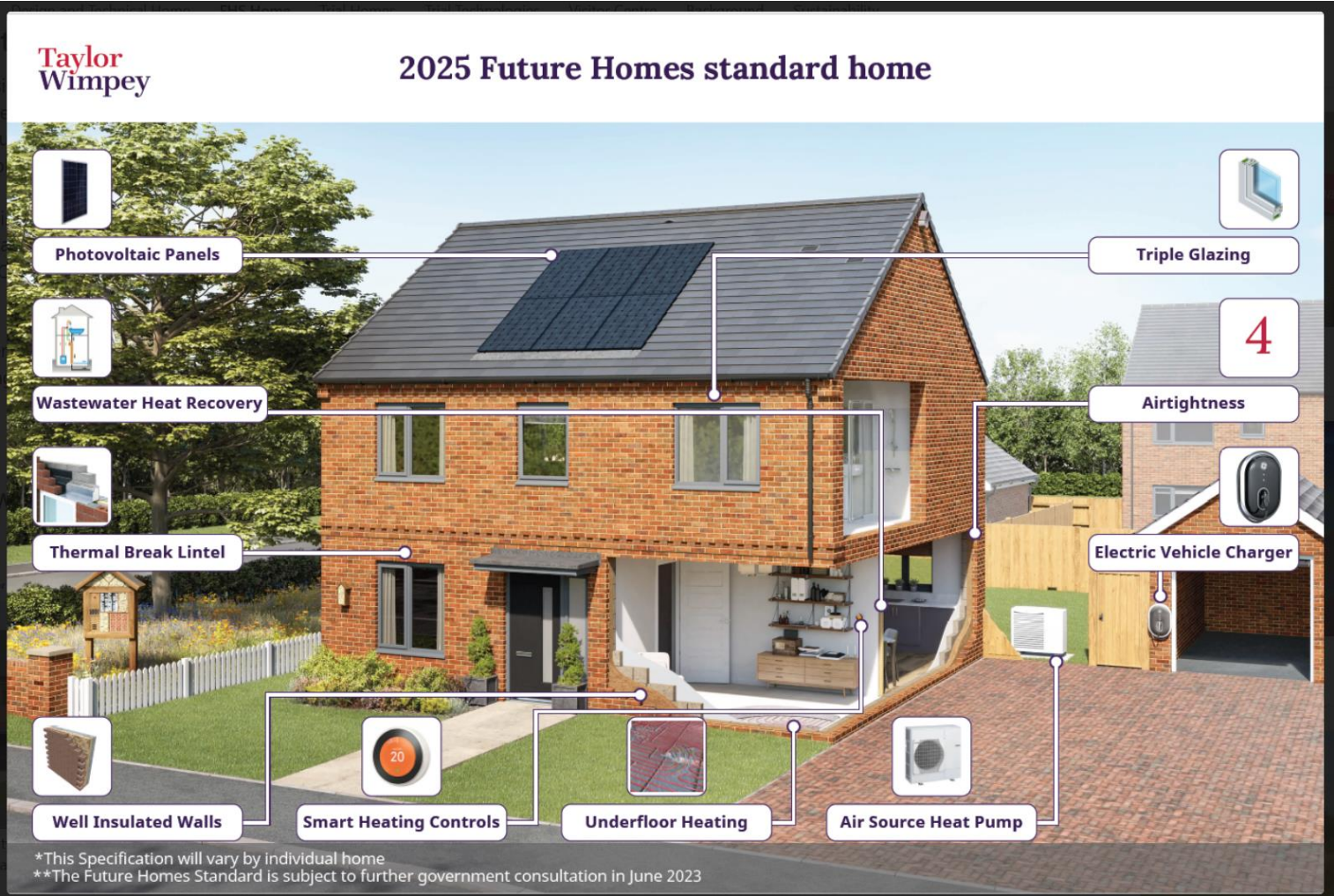
What we do

- We build a wide range of homes in the UK, from apartments to six-bedroom houses. We complete approx. 10,000, including joint ventures. In addition, we build affordable housing across the UK, which represented approx. 21% of our total UK.

Working with partners

- Working with others benefits us all and is at the heart of a successful and sustainable development. We aim to be the land buyer and residential developer that everyone wants to deal with.

About Taylor Wimpey



About Taylor Wimpey



What are SuDS?

Ciria SudS Manual definition

Sustainable Drainage System (SuDS) Drainage systems that are considered to be environmentally beneficial, causing minimal or no long-term detrimental impact.

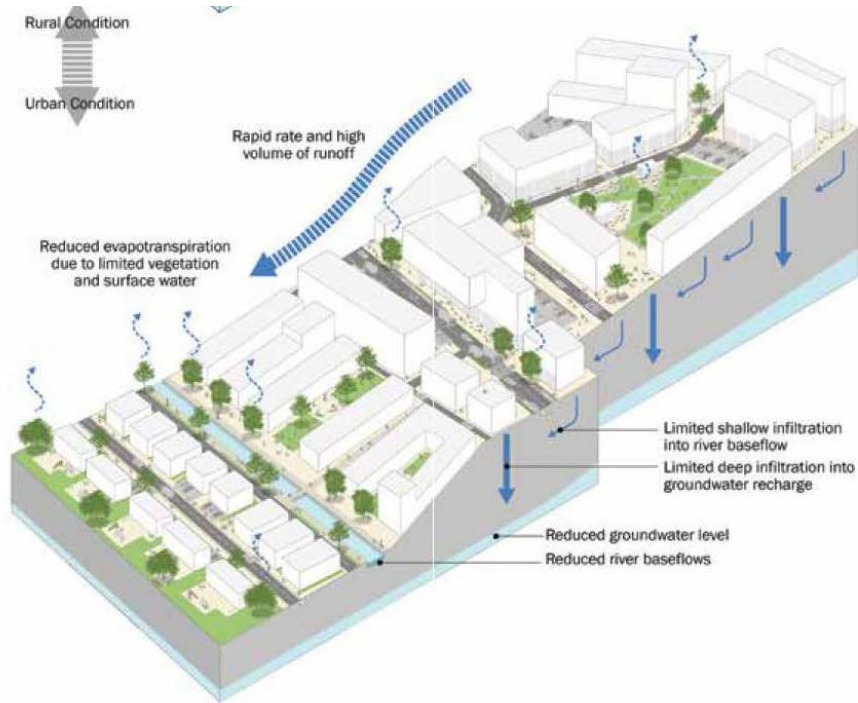
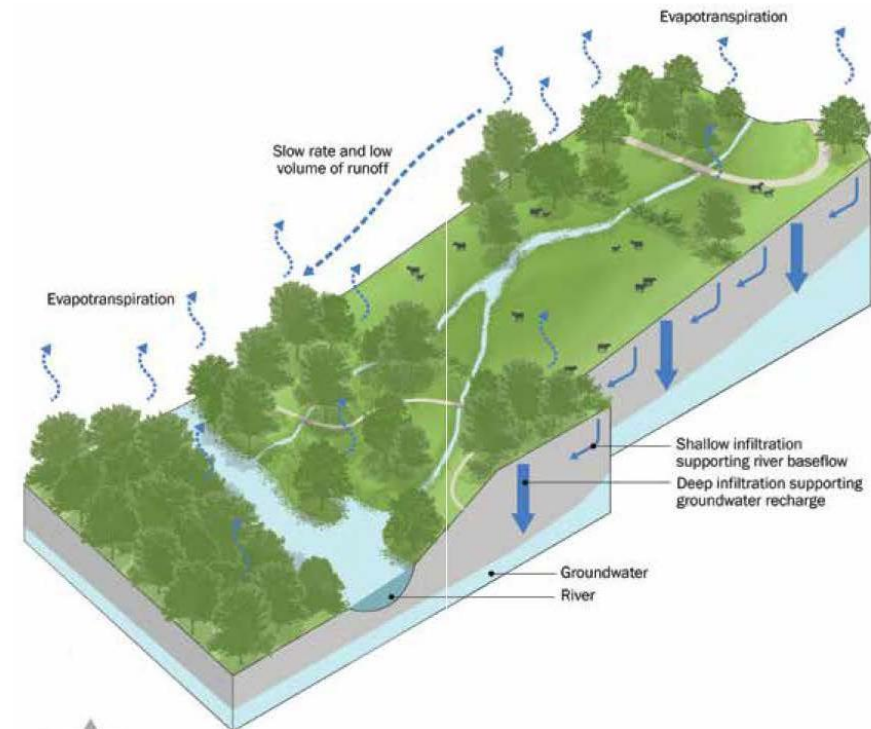


Figure 1.2 Impacts of urbanisation on a catchment



Sustainable Techniques

In 2021, we estimate our homes achieved an average water consumption (internal and external) of 122.8 litres per person per day.

Water Butts



With the launch of our environmental strategy, we will be making it easier for customers in water stressed regions to install a water butt.

Permeable Paving



Permeable paving allows water to soak into the ground. This helps to improve water quality and reduce the risk of flooding.

Detention Basins



Detention basins are landscaped depressions that are normally dry except during and immediately following storm events.

SUDs From a Planning Perspective

- Sustainable drainage systems (SuDS) are the preferred approach to managing rainfall from hard surfaces and can be used on any site. The main purpose of SuDS is to mimic the natural drainage of the site before development and reduce flood risk. (*Northumberland County Council Flood and Coastal Erosion Risk Management – SuDS & Planning*)
- National planning policy requires when determining planning applications, local planning authorities (LPA) should ensure flood risk is not increased elsewhere. (*Northumberland County Council Flood and Coastal Erosion Risk Management – Use of SuDS in Developments and Local Standards*)
- Due to increased pressure on the sewerage system and in order to mimic natural drainage, SuDS are generally the preferred method of addressing issues regarding surface water drainage within developments. (*Northumberland County Council Flood and Coastal Erosion Risk Management – Use of SuDS in Developments and Local Standards*)
- Any new development submitted to Northumberland County Council will need to incorporate SuDS within its design. Any submitted scheme will need to adhere to national and local standards. (*Northumberland County Council Flood and Coastal Erosion Risk Management – Use of SuDS in Developments and Local Standards*)
- SuDS should be designed to be accessible and useable spaces outside of frequent storm extents both for amenity and wildlife with appropriate health and safety assessments considered. Gradients of 1 in 5 are preferred for useable amenity space. (*North-East Lead Local Flood Authorities Sustainable Drainage Local Standards – Local Standard 21*)

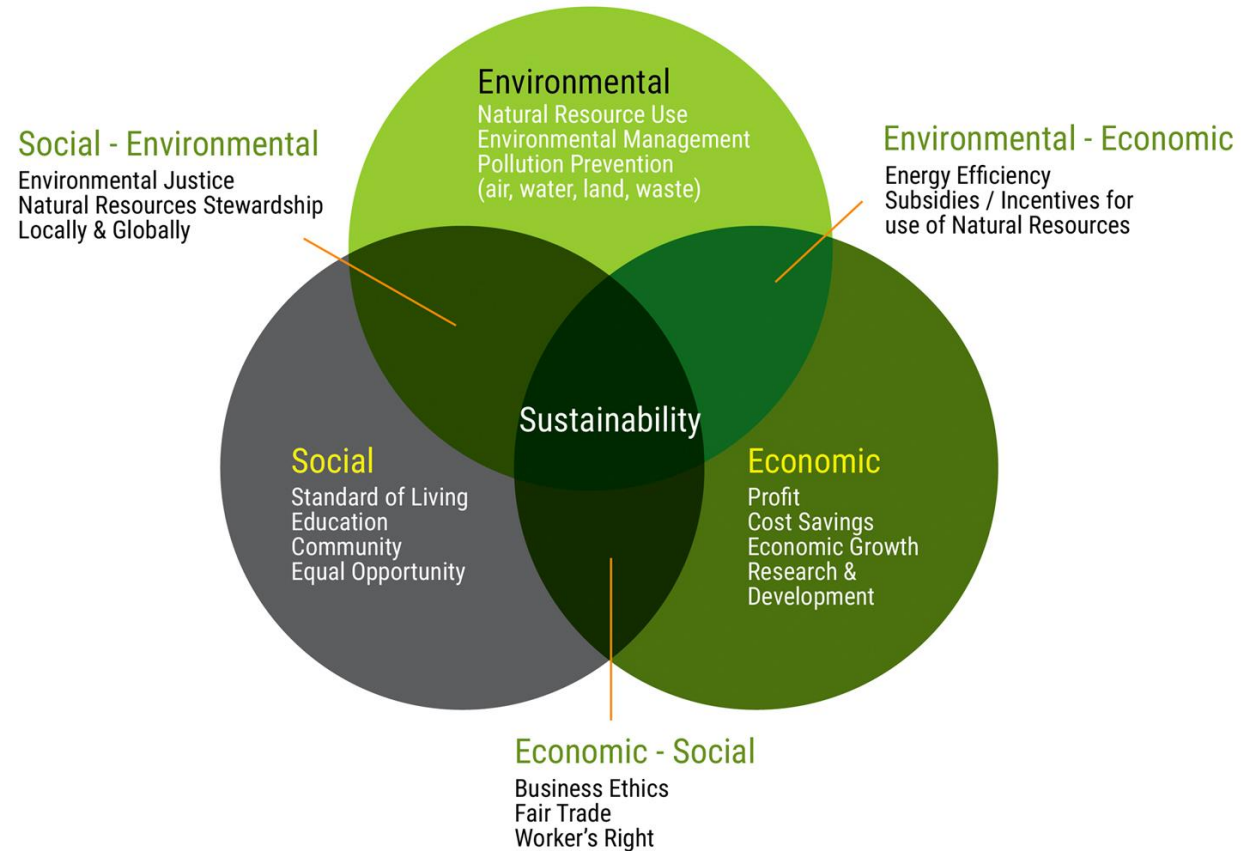
SUDs From an Engineering Perspective

- Replacing porous soils with non-porous hardstanding comes with major implications surrounding flooding and general surface water management. Because of this, SuDS are an integral aspect of engineering design on new developments.
- SuDS include a broad range of techniques designed to manage rainwater sustainably, notably permeable paving, swales and attenuation basins.
- Permeable paving and swales can be described as 'source control measures' and tend to work alongside attenuation basins as part of a wider SuDS network. These look to maximise site permeability to promote attenuation, treatment and infiltration.
- The scale and nature of the SuDS system is worked through a 'greenfield runoff' calculation, this gives a general idea as to how much permeable land has to be offset through the aforementioned techniques.
- There is national standards surrounding SuDS and these set out what to design and construct in order to be adopted by the local council.
- In addition to this, Local Planning Authorities may set local requirements for planning permission that may be considered more stringent than these national standards. The North East Lead Local Flood Authority (LLFA) act as statutory consultees for North East Planning Authorities (Durham, Gateshead, Newcastle, Northumberland, North Tyneside, South Tyneside & Sunderland) with regards to setting these requirements.
- In addition to the standards set at national and local level, there is independent bodies such as CIRIA who provide guidance/support to support successful SuDS construction and delivery.

Benefits

- A wholly "Sustainable" Solution
- Placemaking
- Increasing Value
- Manage as open Space (sometimes)
- Simply can be the right thing to do
- Can not happen without development.

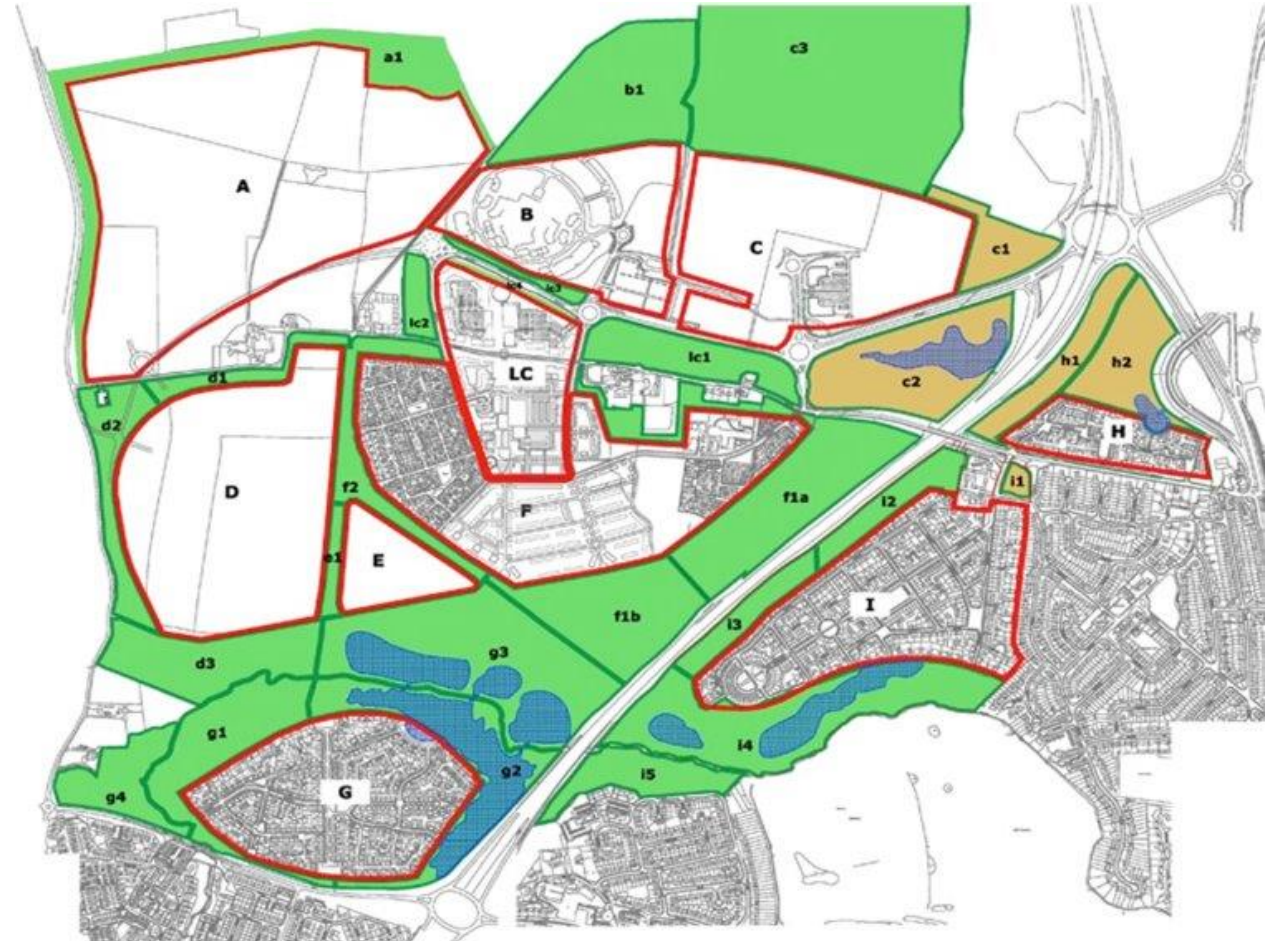
THE THREE SPHERES OF SUSTAINABILITY



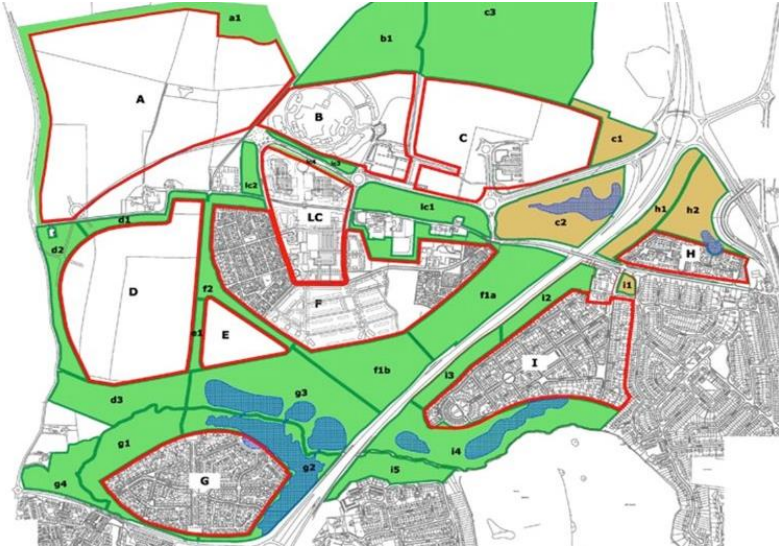
SUDs on Taylor Wimpey Sites

Newcastle Great Park

- Mixed use development approved in 1999. Taken out of Greenbelt in part;
- The only major development delivering family homes for the City until further green belt release in 2015;
- Over 4000 new homes, three schools, Town centre, Community uses and 50% Open space (600 acres) of various typologies;
- Ongoing since 2000 estimated completion beyond 2030; and
- Biodiversity key and the site has delivered
- Mixed use development approved in 1999, with over 4000 new homes, three schools, and a Town centre
- <https://youtu.be/0oleaChck4M?si=2rQh62CiH2y92-t6>



Newcastle Great Park



Dynamic Flood Plain

A floodplain that is constantly changing due to a variety of natural and human-related processes, making it a highly active and evolving landscape over time



Newcastle Great Park





Taylor Wimpey

MAKE A HOME AT TAYLOR WIMPEY

St. Andrews Gardens – Morpeth



225 dwellings situated on the south-western edge of Morpeth, former Northgate hospital. The site was completed in July 2022, and SuDS ponds have been delivered.



North Seaton Park – North Seaton



80 dwellings located in the town of Ashington. The site was completed in July 2022, with both SuDS ponds delivered.



Willowburn Park – Alnwick



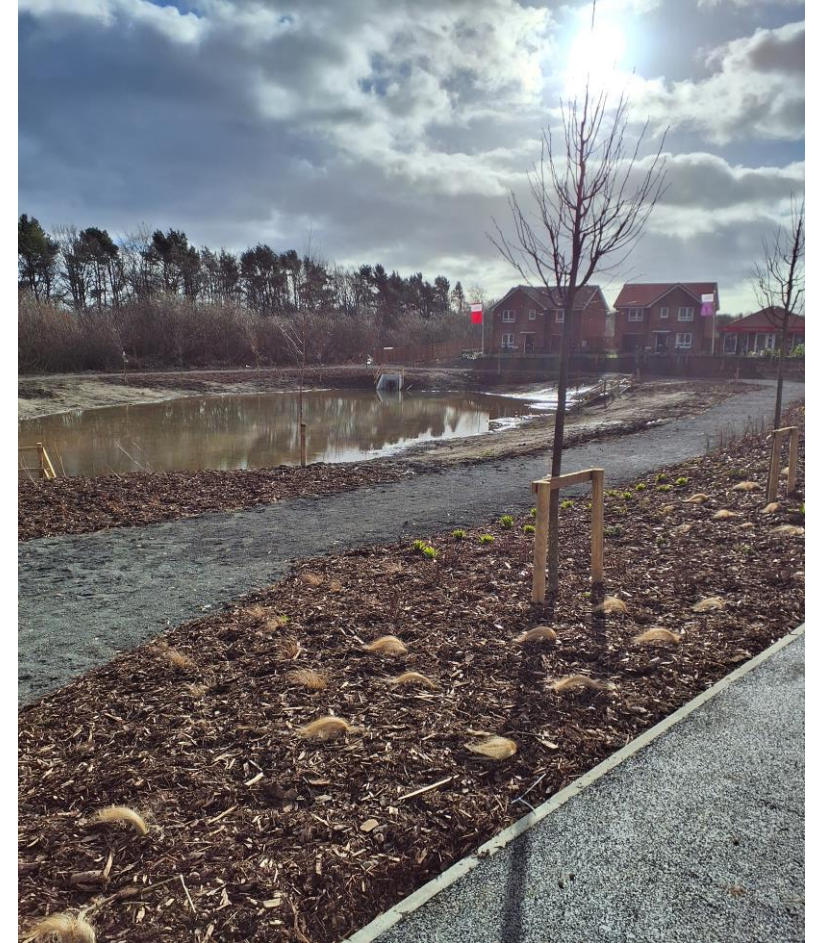
Willowburn was a development that formed part of a wider Masterplan for the south of Alnwick. The comprehensive approach to Masterplanning is to not only deliver a range of community facilities including schools and playing fields, but also multi functional SuDS.



Stoneridge Hall - Usworth



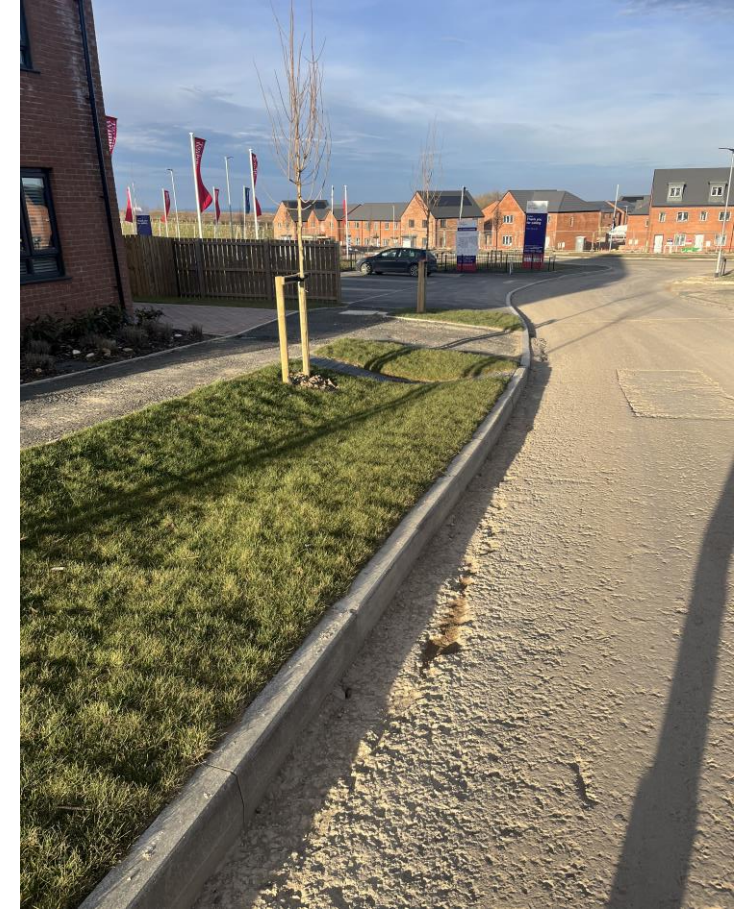
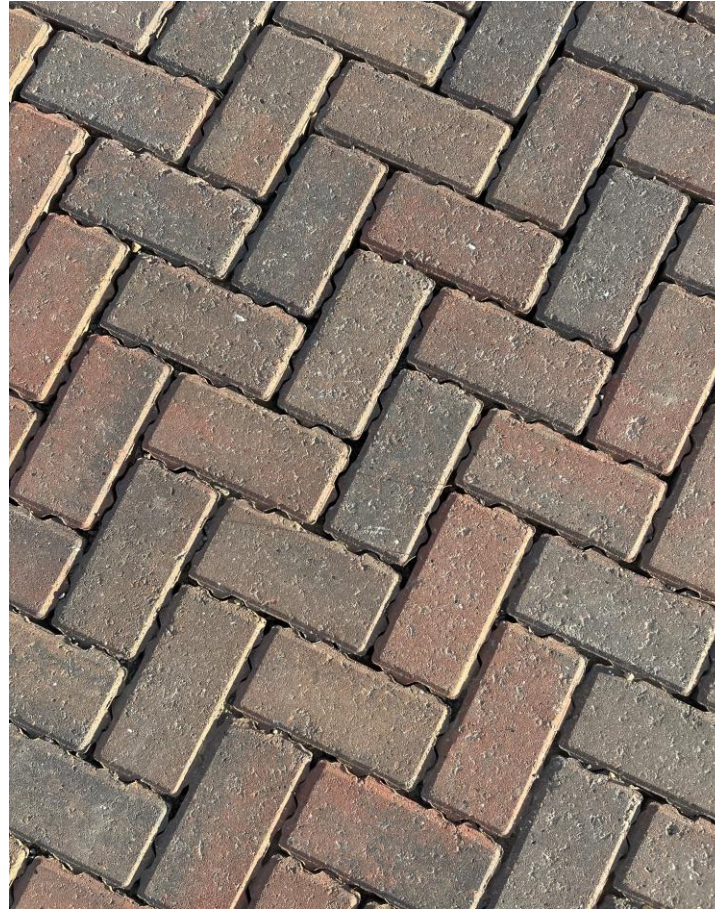
Former Usworth College in Sunderland, Combination of Permeable paving, filter strips, swales and SuDS Basin.



Seaham Garden Village – Seaham (Continued)



Working alongside the basins are a number of source control measures, these are in the form of swales/permeable paving within the development cells themselves.



Long Term Management

Who

- The Local Authority
- Parish/Town Councils
- Landowner
- Management Company

Problems

- None if you consider what is being delivered
- A multitude if you solely consider Risk and Cost.
- Cost to residents if service charge

Benefits

- Community Asset



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Q & A



Taylor
Wimpey

MAKE A HOME AT
TAYLOR WIMPEY



BIODIVERSE

CONSULTING

BIODIVERSITY NET GAIN

A GENUINE OPPORTUNITY FOR PEOPLE & WILDLIFE

VICKI MORDUE 2025



CONTENT

01	WHY BNG? The depressing part.
02	WHAT IS BNG – Its Simple really.
03	WHERE ARE WE TODAY – The latest.
04	BNG – The more complex aspects.
05	THE STATUTORY METRIC – The Essentials
06	HABITAT BANKS – The opportunities
07	TIP TOP TIPS – How to make the most of BNG for your community

01



Biodiversity Net Gain & Development

The Challenges



STATE OF NATURE

2023



Chris O'Reilly (raspb-images.com)

WHY BNG?

THE SIXTH MASS EXTINCTION

- Nature in the UK is still seriously declining: We are already one of the most nature-depleted countries in the world.
- *'The UK itself has lost much of its wildlife, ranking 189th for biodiversity loss out of 218 nations in 2016,'* **London Zoological Society 2018**
- The UK has now legally binding targets to halt species decline by 2030 and international targets in the Global Biodiversity Framework to protect 30% of land and seas by 2030



WHAT IS BIODIVERSITY NET GAIN?

Simply put, '*Biodiversity Net Gain is development that leaves biodiversity in a better state than before,*'
CIEEM 2018

The Basics!

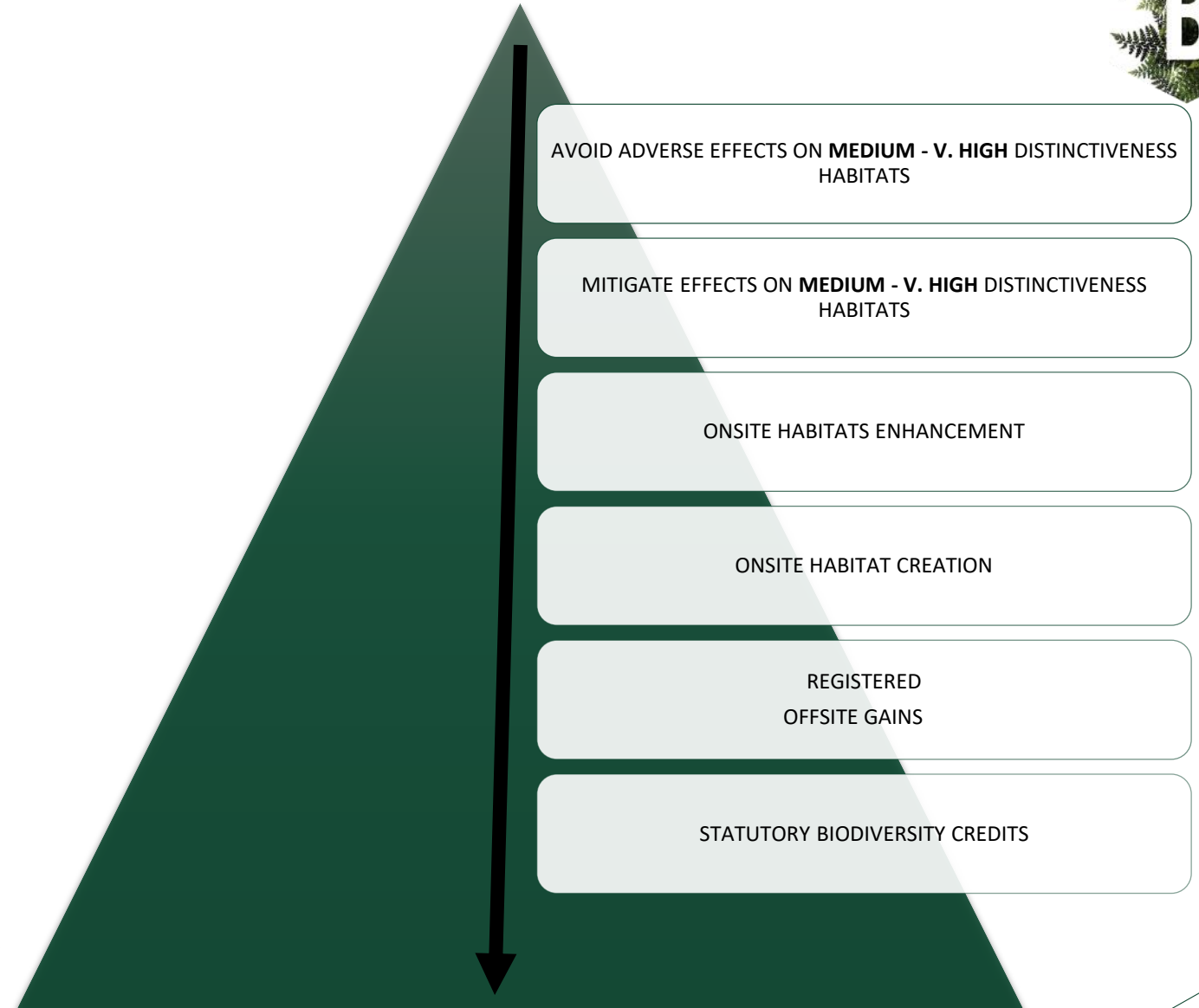
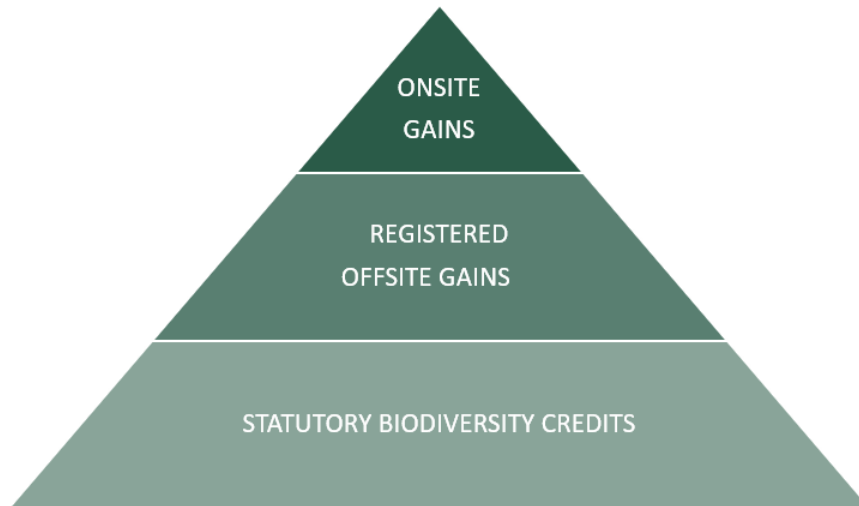
- Takes habitat information from field surveys
- Plugs it into a metric
- The output is quantified into “Biodiversity Units”
- Information on post construction landscape plugged into metric
- 2 elements pulled together to establish whether development will be positive or negative and by how much.
- Each Unit has a monetary value.

Allowing a means to speak the language of developers!

BIODIVERSITY GAIN HIERARCHY



BIODIVERSITY GAIN HIERARCHY



AS OF TODAY



- Mandatory Net Gain: **12th February 2024**
- Small Sites: **2nd April 2024**
- NSIPS: **November 2025**
Guidance Published: **September 2024**
- Biodiversity Regulations now live
<https://www.legislation.gov.uk/ukxi/2024/47/contents/made>
- In England, biodiversity net gain is required under a statutory framework introduced by Schedule 7A of the Town and Country Planning Act 1990 (inserted by the Environment Act 2021).





WHAT'S IN & WHAT'S OUT

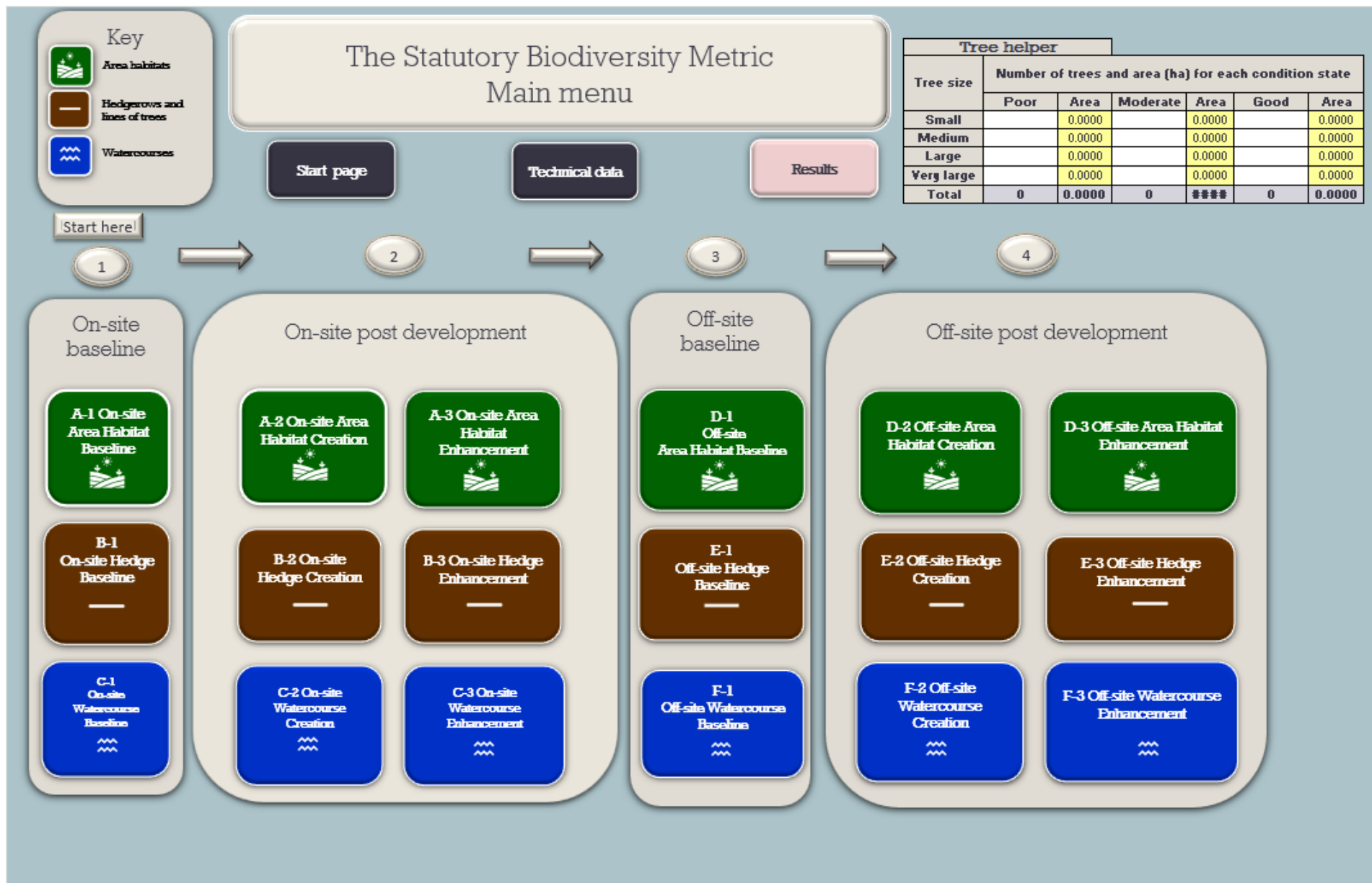
INCLUDED DEVELOPMENT

- All land development to low water mark, except permitted development. Including:
- Brownfield development
- Change of Use
- Temporary permissions
- Small sites
- Resi: <10 dwellings on <1ha site OR unknown number on <0.5ha site;
- Non-resi: floorspace <1000m² OR <1ha site

EXCLUDED DEVELOPMENT

- Permissions granted for applications made before this date are not subject to biodiversity net gain.
- Retrospective planning permissions made under section 73A
- Section 73 permissions where the original permission was either granted before mandatory or the application for the original permission was made before [January xx]
- The approval of reserved matters for outline planning permissions are not within the scope of biodiversity net gain (as they are not a grant of planning permission).
- **Temporary exemption for non-major developments (until April 2024)**
- Site's baseline is 0 (i.e. sealed surface/hardstanding)
- Temporary impacts restored within 2 years
- **De minimis habitat area 25m² / 5m**
- **Householder Applications**
- **Permitted development**
- **Biodiversity Gain Sites**
- **Small scale self build/custom housebuilding (max 9 dwellings on area 0.5ha) definitions here: <https://www.legislation.gov.uk/ukpga/2015/17/section/1>**
- **Urgent Crown Development**
- **HS2**

THE METRIC



The Trading Rules – LIKE FOR LIKE OR BETTER



Rule 3: Trading rules are automatically applied by the metric and set the minimum habitat creation and enhancement requirements to compensate for specific habitat losses (up to the point of no net loss). These requirements are based on habitat type and distinctiveness.



TRADE OR NOT TO TRADE??



Reedbed



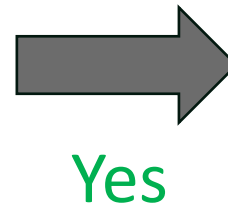
No



Pond (non-priority)



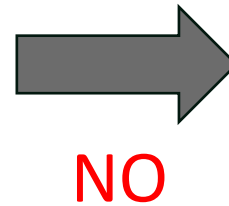
Modified Grassland



Other Neutral Grassland



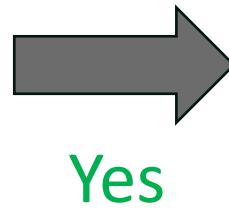
Urban Trees



Broadleaved Woodland



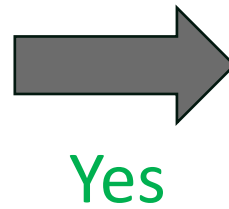
Derelict Land



Allotment



Willow Scrub



Mixed Scrub

02

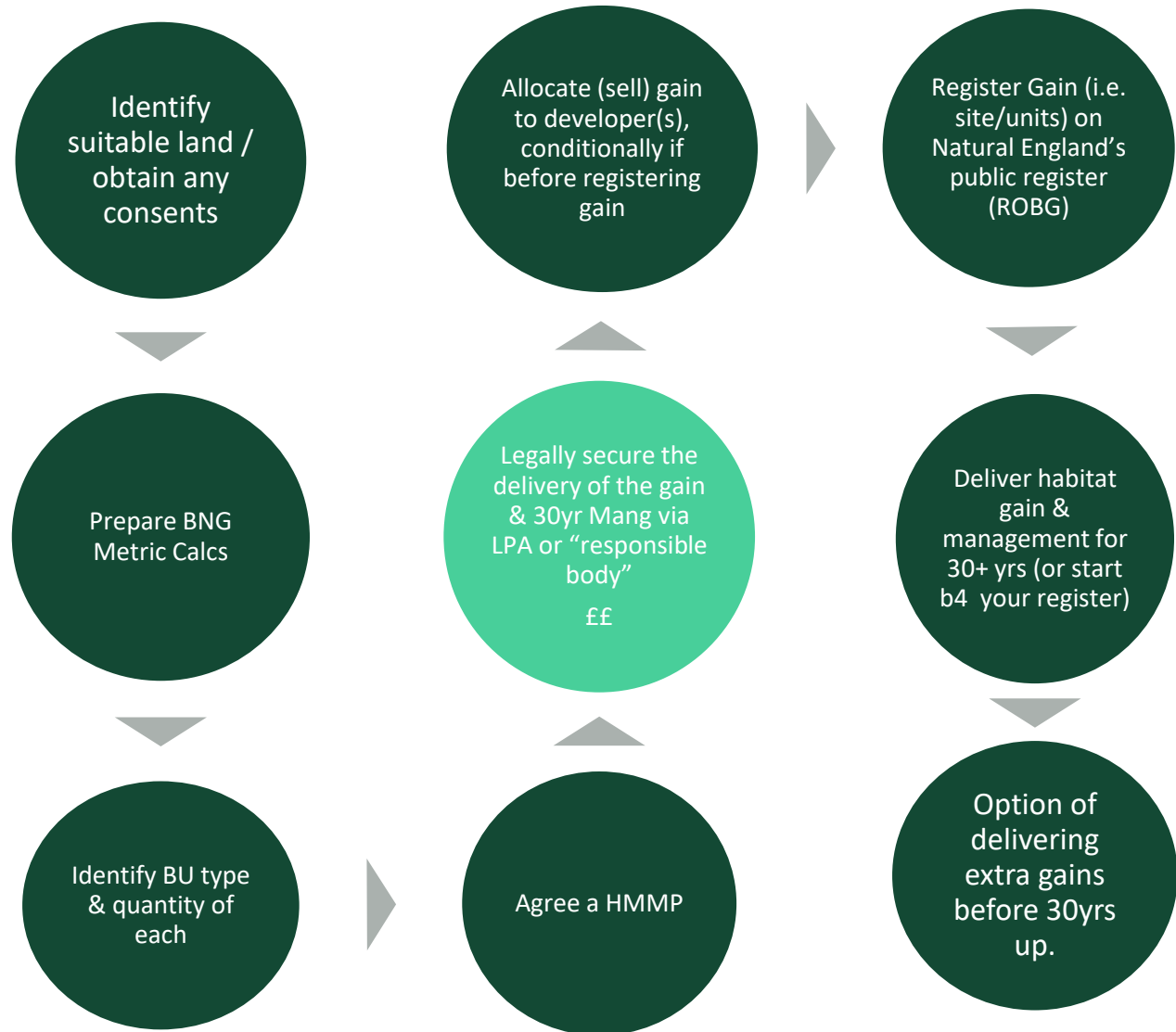


HABITAT BANKS

The Opportunities

THE PROCESS: FOR LANDOWNERS & LAND MANAGERS

i.e. how does a
landowner create
Registered Off-site
Biodiversity Gain
(ROBG)





LANDOWNER DETAIL – STOP THE PRESS!!

Biodiversity Unit Price Alert

Guidance published in October states that landowners should “come up with a price for your units”.

Based on:

- Management of the land covering at least 30 years
- Registration Costs (LPA/other)
- Monitoring and reporting
- Ecologist or other experts' costs
- Insurance
- Costs to cover work if the habitat fails
- Machinery, tools and other staff to carry out the tasks
- Inflation and market competition costs
- Legal Fees (LPA Section 106 + own contracts)

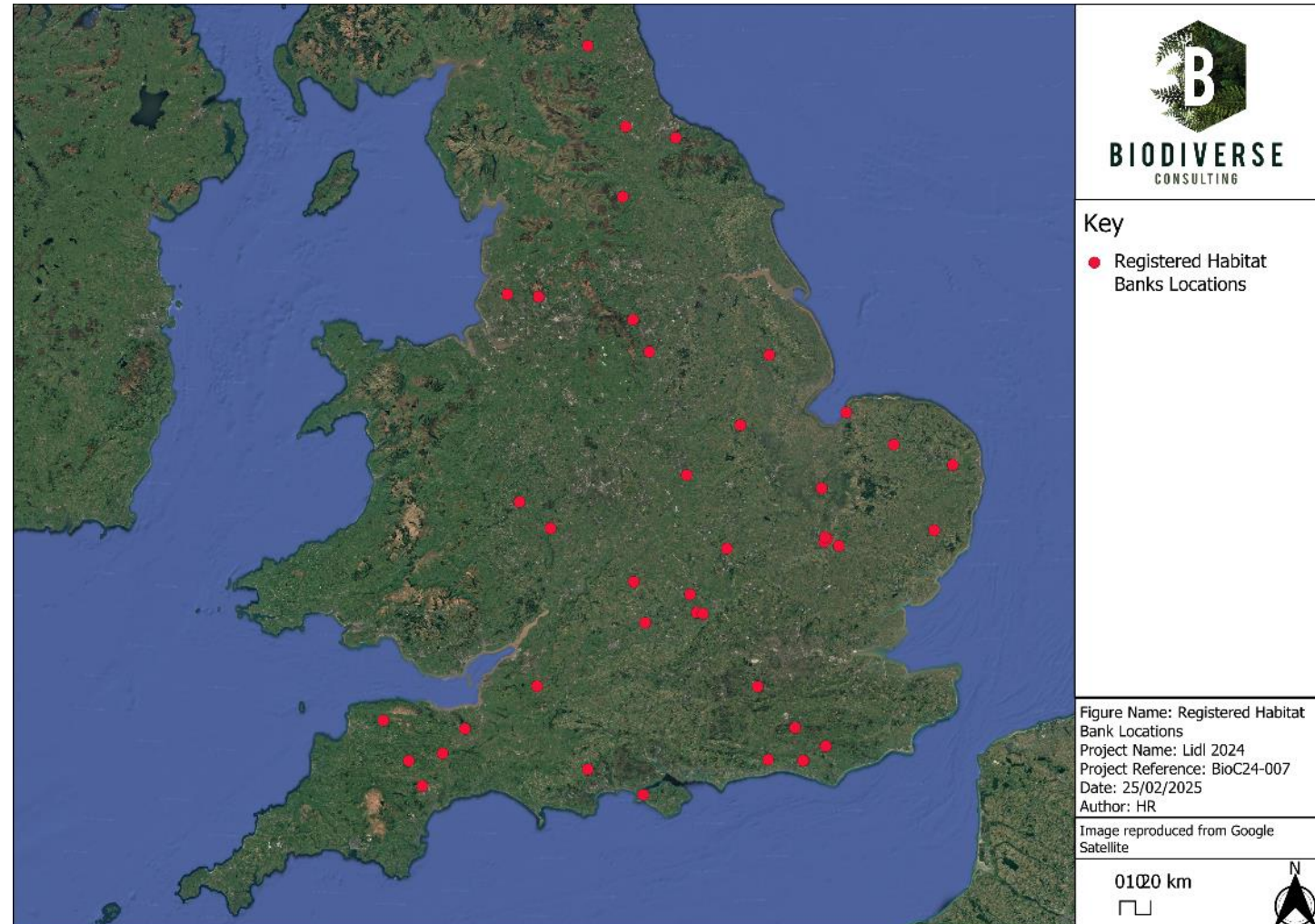
ROBGs need to agree payment terms i.e. lump sum, staged payment, results





Habitat Banks Today

- **Currently 46 banks on the DEFRA Register.**
- **More pending.**
- **Land registry delays.**



07



TIP TOP TIPS

FOR ACHIEVING BNG LOCALLY

Biodiverse's Tip Top BNG Tips



1. Think about what you are your community priorities for wildlife and habitats? Butterflies? Trees? Orchards?
2. Work with developers to ensure that developments offer great habitats that are suitable, deliverable and can genuinely be managed over 30 years.
3. Ascertain what land you could utilise for Habitat Banks to ensure that Biodiversity Gains can be delivered locally.
4. Be prepared for a 30 year commitment and understand costs and risks involved.
5. Remember this is a market like anyother with supply and demand requirements
6. Ensure you have the right BNG Dream team in your corner.
7. And work with a fabulous Ecologist !!





BIODIVERSE

CONSULTING

THANK YOU

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