

---

# Green Space and Well-being

a good practice guide for  
housing associations



# Contents

---

3

Introduction

---

18

Behaviour change

---

35

Summary

---

7

Green space and  
green infrastructure

---

21

Improving existing green space  
and working with communities

---

37

Key resources

---

12

Ways of working

---

29

Designing green space  
and green infrastructure

---

39

References

---



# Introduction

# Introduction

---

## Who is this guide for?

This guide is a good starting point for housing associations who want to enhance the quality of their existing green space and design better green space and green infrastructure for the benefit of their tenants and biodiversity. The guide uses examples from Wales and is set in a Welsh context but will be useful for any housing association.

The guide aims to signpost housing associations to the existing knowledge around green space and green infrastructure and contains ways of working to enhance it and case studies from the sector.



# Introduction

---



## Mannau Gwyrdd yn Tyfu Growing Green Spaces

---

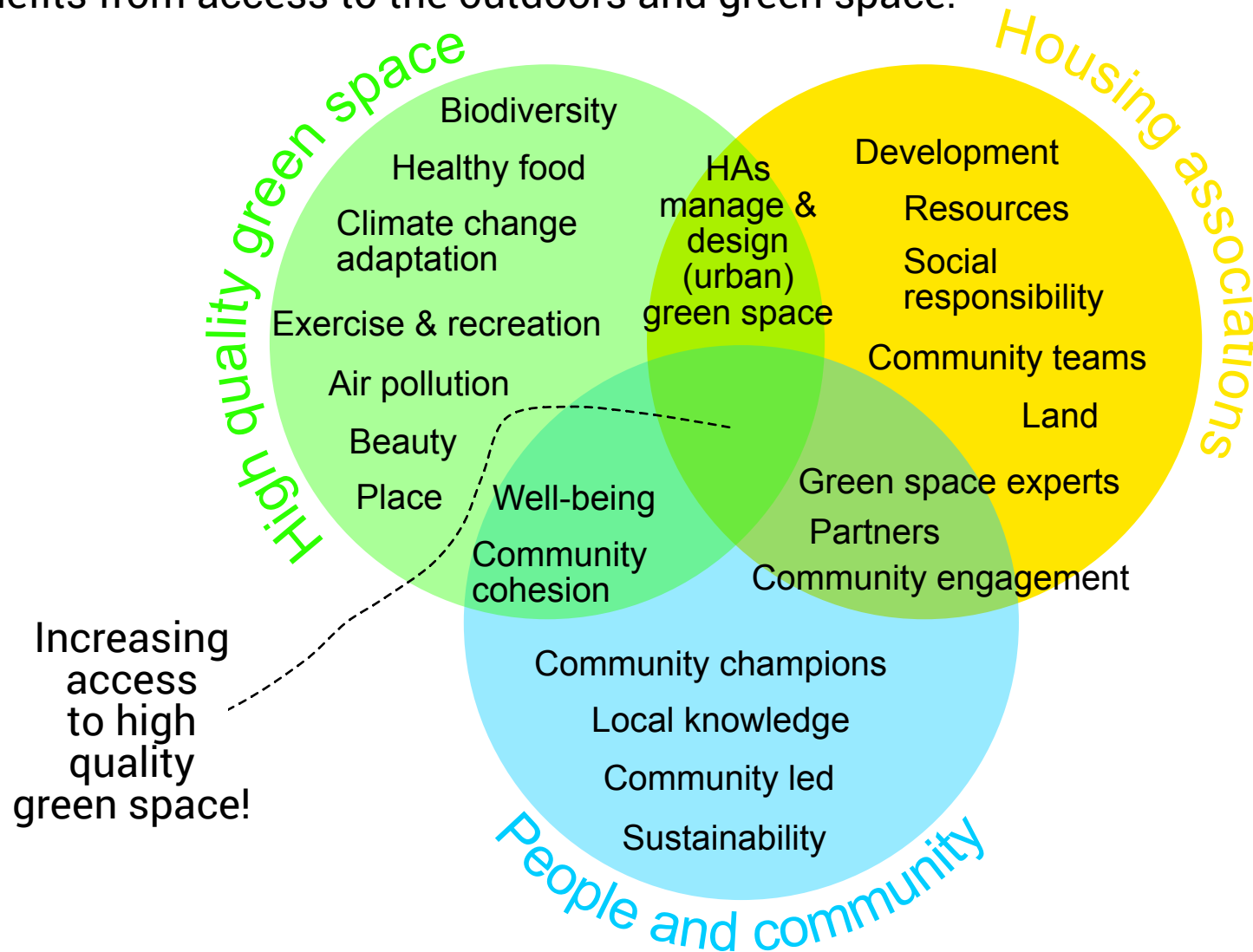
### Background

This guide draws on learning from the Growing Green Spaces project. Funded by the Natural Resources Wales Sustainable Management of Natural Resources (SMNR) pilot grant and working with Linc Cymru, the year long project worked with a range of partners across South Wales. Types of work spanned supporting community led projects around green space to advising the development team on design.

The project was embedded in the Well-being of Future Generations Act, aiming to help people live healthier and more fulfilled lives through improved access to the outdoors for health and well-being. Green space plays a key role in achieving the 7 Well-being Goals set out in the act (Wildlife Trusts Wales 2016, Welsh Government 2015).

# Introduction

As the diagram below illustrates, housing associations are well placed to help deliver benefits from access to the outdoors and green space.



A photograph of a lush green field filled with numerous white daisies. In the background, several people are blurred, suggesting a public gathering or event. A brick building is partially visible on the right side. The overall scene is bright and sunny.

# Green space and green infrastructure

---

# Green space and green infrastructure

## Green space or green infrastructure?

This guide will use both terms – but what's the difference?

Green infrastructure is a network of features of varying scales. It is multifunctional with features that are connected to each other, the surrounding countryside and urban populations (Building with Nature 2019, Sinnott et al. 2017, Wildlife Trusts Wales 2016, Natural England 2009, Cabe Space 2005, TCPA 2004).



## Connectivity

- Connectivity makes the green infrastructure approach distinct and allows it to deliver maximum benefits.
- Green space, for example a community garden, may be seen as a feature of green infrastructure.



# Green space and green infrastructure

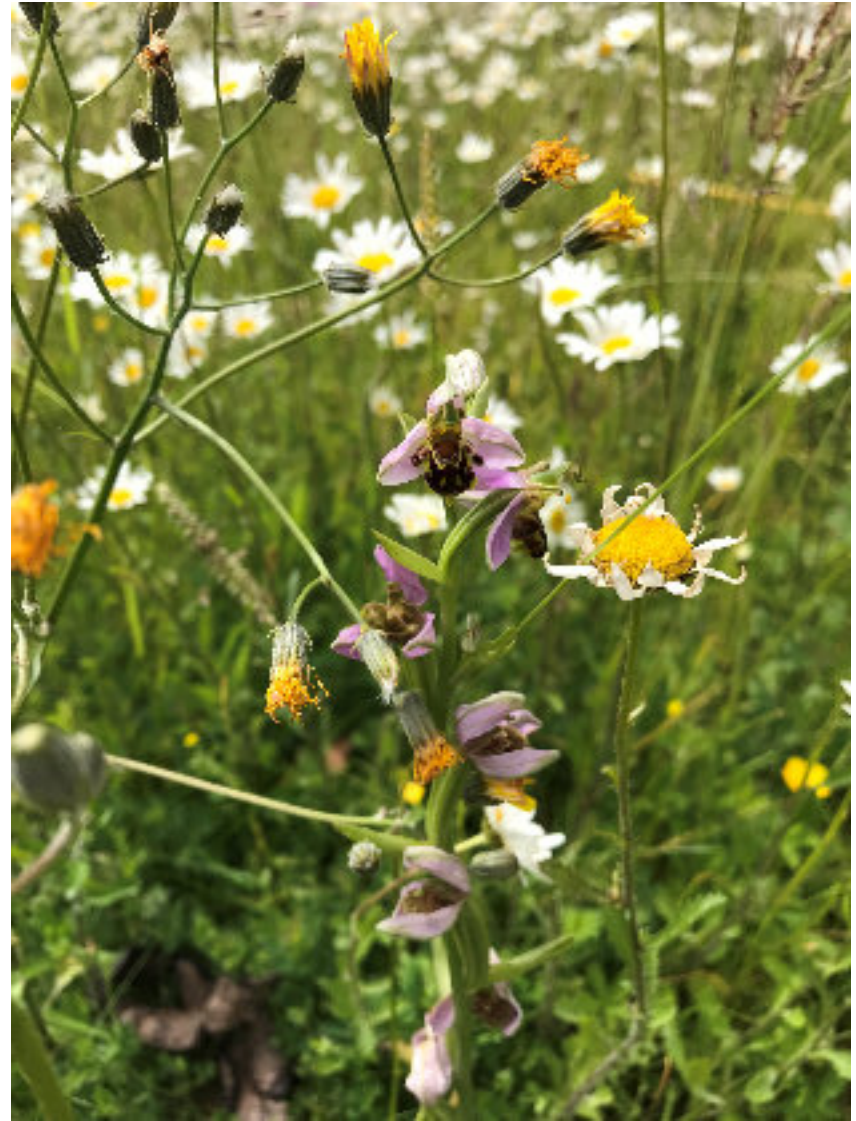
---

## Quality

What are features of high quality green space and green infrastructure?

Multifunctional, accessible, inclusive, responds to local context, biodiverse, interactive (opportunities for play and food growing), creates habitat, contains water collection features and provision for sustainable drainage systems (SuDS) (Building with Nature 2019, Natural England 2009).

It is key that high quality green space is brought into urban centres close to where people live to allow maximum access and benefits to well-being (Natural Resources Wales 2016).



# Green space and green infrastructure

---



## Benefits

There are many benefits from high quality green space and green infrastructure and access to it including;

- Improvements to physical and mental health
- Social cohesion
- Opportunities to learn and develop skills
- A healthy environment (reducing the effects of air pollution, providing healthy food and adapting to climate change through SuDS and the cooling effects of urban trees)
- A positive sense of place
- Reducing the loss of biodiversity and increasing habitat connectivity
- An improved connection to nature and perception of it

(Scholz et al. 2018, Natural Resources Wales 2016, Wildlife Trust Wales 2016, Groves and McNish 2011, Stewart et al. 2004, Garden Organic and Sustain 2004)

Connection to nature is fundamental for people's well-being (IACCF 2010). The reintroduction of nature into human environments is especially significant to Wales, where children feel they are the least connected to nature in the whole of the UK (Bragg et al. 2013).

# Green space and green infrastructure

---

## Management and Sustainability

- For the benefits that green space and green infrastructure provide to be sustained it is key that provision is made for long term management.
- If the green space is community led, facilitate removal of barriers which may prevent sustained management by the community.





# Ways of working

# Ways of working

What ways of working are needed to improve and increase access to green space?

## Collaboration

Collaboration is vital with expert partners, different departments, different housing associations and with communities. Forming good relationships with these groups is essential to build trust and form natural working relationships.



## Case study – St. Mellons Community Garden

The St. Mellons Community Garden is a fantastic project started in 2012 which is now largely self-sufficient. They play a key role in the local community, welcoming everyone and taking many social prescribing referrals, combatting loneliness and offering an opportunity to learn new skills. They are a Green Flag Community Award winning green space.

One of the key parts of the success of this project was cross housing association support, with Wales and West gifting the land and with other local housing associations Hafod and Linc Cymru providing financial support and training in first aid, food safety and health and safety. Cardiff Council and Keep Wales Tidy also played a key role at the start of the project.

# Ways of working

## Expert advice

Collaborating with experts in green space and green infrastructure is especially important when doing this work. Without this projects may fail or not be sustainable and not deliver benefits. For example, wildflower meadows failing due to improper management. Many organisations will be happy to give advice if they cannot work with you.

You may want to search for projects expert organisations are doing in your area and see whether you may co-deliver.

## Case study – working with Buglife Cymru

The Growing Green Spaces project worked closely with Buglife Cymru where they used project time from their involvement in the Living Levels Land Partnership to give advice around creating a wildflower meadow and co-delivered 'The Day of Bees' at The Lysaght Institute in Lliswerry Newport. It included education around different types of bees, their benefits and building solitary bee homes. The day also promoted use of The Gwent Levels which many of the attendees from the urban area had not visited despite its proximity.



# Ways of working

---

## Resource

This type of work does require funding – especially at the early stages of a project. It's important to dedicate funding to getting projects off the ground so it can be sustained, for example creating a community garden which would require compost, a water butt, a composting system and perhaps tools, raised beds, storage and seeds. Let's say you decide to skip the water butt to save money. With no water source it would not be sustainable, and the rest of the funding would go to waste.



When supporting community projects, it's important to facilitate them being able to get their own funding – supporting them in getting constituted and with applications.

Many local authorities also offer schemes providing free compost to community groups – get in contact with yours to see what they can offer.

# Ways of working

---



## Time

Time is one of your most important resources. This type of work takes a lot of time. You need to work seasonally, plan projects and engage the community effectively and input time at the start of a community project to ensure you've done everything you can to allow them to run it sustainably.

For this reason, do not spread yourself too thinly over too many projects – better to work on less and input more time to ensure their longevity – then move on to the next one!

## Different scales

Think creatively – this kind of work should be done on all scales, from small scale (e.g. a window box) to street and neighbourhood scale.

Do not think small scale is not worth it - small changes or enhancing small spaces can make a big difference. Small scale projects can also be used as demonstration of what can be achieved.



# Ways of working

---

## Mainstreaming – organisational change

It's important to try and mainstream this kind of work – do not just keep it to yourself in your organisation. Many other departments will be vital in helping you enhance and increase access to green space. For example, working with and educating assets management to embed relaxed mowing into grounds maintenance contracts to benefit pollinating insects. By sharing knowledge from partners we were able to demonstrate to our health and safety managers that solitary bees do not pose a risk – allowing us to fit solitary bee homes.



# Behaviour change



# Behaviour change

---

## Behaviour change

Throughout the Growing Green Spaces project, we learnt the importance of trying to change behaviour to increase access to green space. Both top down organisational change and bottom up change from the community.

But how do you change behaviour?

First its critical to understand what is causing the behaviour – is it the design of the system, the environment or the individual?

Then try to change what is causing this behaviour, for example, through education, training, environment change or incentivisation.

For behaviour change to occur the individuals must have the knowledge to perform the behaviour, the physical opportunity (physical environment allows behaviour) and the social opportunity (does social circle value and thus allow behaviour) (Lefevre).

# Behaviour change

## Case study – The Lysaght Institute Community Garden

The Growing Green Spaces project worked with the Friends of Lysaght group, tenants of Orb Drive in Lliswerry Newport to set up a community garden in the garden of The Lysaght Institute. There was already a raised bed in the garden filled with soil, however it had never been used despite the interest from the community.



Working with and engaging with The Friends of Lysaght we identified what was stopping the group using the bed, much of it was the physical capacity – there was a raised bed but no compost bin, water source or tools. There was also a lack of social opportunity – the group had not yet developed a sense of ownership over the space. Overcoming this, the Friends of Lysaght now use the space regularly for events, food growing and have created a wildflower meadow. The garden has now received a Green Flag Community Award recognising the progress the group has made.



Improving existing green space  
and working with communities

# Improving existing green space and working with communities

---



## Community led

It is important to establish the role of the community in any project. They will be the ones using the green space. Establishing this and working accordingly will be key to the project's success.

Is the project community led? Will the community be using and managing the space going forward? If this is the case it is key to 'work with' and 'not to' the community to make the project authentically community led. Talk with the community – see what they need and act as a facilitator connecting them with expert partners, resources and support. In doing this you will help create a sense of community ownership over green space which is key for its sustainability. It's also important to clearly establish everyone's roles and responsibilities either informally or formally via a license.

In cases where projects are not community led the community will still need to be closely involved at the engagement stage to ensure improvements to existing green space are accessible and respond to local context.

# Improving existing green space and working with communities

## Case study – Jubilee Park Ebbw river clean

A tenant of a new housing estate called Jubilee Park in Rogerstone Newport approached Growing Green Spaces for help in organising a river clean day on a local stretch of the Ebbw to bring the community together. We worked with him to design a leaflet and promote the event, connected him with Keep Wales Tidy who co-delivered the event and provided equipment as part of Marine Clean Cymru. We also connected the tenant with a local environmental group Wild About Rogerstone who designed a spotter sheet and contacted the Wildlife Trusts to deliver a talk on local otter ecology. The day itself was great, but the main success was working closely with the tenant, supporting his initiative and connecting him with local groups in the area.



# Improving existing green space and working with communities

---



## Engagement

Effective community engagement is perhaps the most important part of any project. Engagement is key for all types of green space improvement and retrofitting projects. Engagement should not be seen as something that has to be done to move on with a project – it should have a key role in defining a project.

Think about how to tailor your engagement style to who you're trying to engage. Use different avenues, including social media. Think about setting (go to the community not the other way around) and language (for example changing workshop to chat).



# Improving existing green space and working with communities

## Case study – Tre Cwm environmental regeneration

Tre Cwm in Llandudno is a stock transfer estate of almost 400 homes transferred from the local authority to Cartrefi Conwy in 2008. Cartrefi Conwy own and manage 59% of the estate. Tre Cwm had a distinct lack of green space and the area has suffered from anti-social behaviour. Cartrefi Conwy set up an Environmental Fund to improve outdoor spaces across its neighbourhoods delivering £771,000 per year over 5 years. The regeneration has now transformed the estate, creating a community to be proud of and employing local residents in the process. The estate has received a Green Flag Award. A key part of the success was the community consultation. The project began with 12 months of initial consultation – which used innovative methods, consulting around Plutchik's wheel of emotions to assess how people felt about a place and their aspirations for the project.



(Cartrefi Conwy 2015)

Consultation then ran throughout the course of the project – returning to the community with proposals and plans. Consultation took place in person, knocking on doors, at events and over social media. Thought was also put into timing, for example how seasons would affect consultation and into consulting meaningfully with both children and adults (Stowe 2019).

# Improving existing green space and working with communities

---



## Community skills

Taking an assets-based approach when engaging with the community, investigate what skills and resources are already within the community (Russell 2015).

How could you enable these to be shared and what skills may need to be updated?

## Community centric

If projects are community led, it's also important to make them community centric and not housing association centric. That is having the knowledge that community members are doing this in their own time, projects may not go as fast as you were expecting and may not be 'neat'. However, this does not mean that the project is not providing benefits! Think of your own garden, sometimes it gets very messy, but this doesn't mean it provides no benefit to you, biodiversity etc.

# Improving existing green space and working with communities

---

## Case study – Cragside Gardens

The Growing Green Spaces project worked with tenants of Cragside Close in St. Mellons Cardiff to turn a disused parking space at the end of the close into a community garden. The project was community led and we worked with group to license them the land, helped them to clear the space and supplied the garden with recycled wood to build raised beds, a compost bin and a water butt. After a quick start, one of the tenants in the close fell ill and the community took turns to take them to the hospital. The garden became overgrown – this caused concern with some in the housing association. However, the community were not planning to plant until Spring and could not see the point in weeding to early as the weeds would only grow back. In order to move on with the project it was important to both explain how some were feeling in the housing association to the community, but also for the housing association to change their expectation of the project to see it more from the community's point of view.



# Improving existing green space and working with communities

## Green space enhancement ideas

Stuck for ideas? Check out the diagram below. For more information please see the key resources section of this guide.





# Designing green space and green infrastructure

---

# Designing green space and green infrastructure

## Designing green space and green infrastructure

This part of the guide will look at designing new green space and green infrastructure. It will draw on the Building with Nature standard, which has defined high quality green infrastructure through evidence and best practice. This section will not go through the standard comprehensively - please see Building with Nature's website and user guide for specific terminology of the standard and detailed information. We highly recommend it!

It is key that developments which incorporate high quality green infrastructure are not only reserved for the affluent – if not well-being gains cannot be delivered as it is essential that high quality green space and green infrastructure is accessible and close to where people live (Natural Resources Wales 2016). This highlights the important role of housing associations in delivering high quality green infrastructure.



# Designing green space and green infrastructure



## Multifunctional

Green infrastructure should be multifunctional, connect to surrounding countryside and urban populations, have connected features and operate across a wide range of scales from street, neighbourhood to landscape (Sinnott et al. 2017). Features include:

- Bird/bat boxes
- Green roofs and walls
- Water collection systems
- Street trees/hedges
- Private gardens
- SuDS
- Natural play
- Food growing
- Strategic green corridors
- Habitat
- Blue (water) features

## Reflect local environment

Green infrastructure features should;

- Reflect character of local environment
- Contribute to local identity and landscape character
- Be designed sensitively to local environment - including existing habitat (e.g. woodland)
- Work with contours of land rather than against

(Building with Nature 2019, Natural England 2009)

# Designing green space and green infrastructure

## Respond to local context and policy

Design green infrastructure in light of local context;

- Meaningful community engagement
- Design in reference to local policy - see local Public Service Board's well-being plans and local biodiversity action plans

## Positive contribution to minimising environmental impact

Green infrastructure should have a positive environmental impact. This includes carbon emissions, improvement of air and soil quality and reduction in noise and light pollution.

It should also contribute to climate change adaptation and is itself resilient to climate change (Building with Nature 2019).

### Case study – air pollution in Sunnyside

Linc Cymru are designing a new housing development in Bridgend called Sunnyside which includes a lot of green infrastructure. The site borders Park Street which has very high air pollution and is an Air Quality Management Area. Responding to this local context, plans include additional trees along the Park Street border of the site. Trees were selected by their ability to improve air quality using work by Steward et al. (2004). This work shows the ability of different tree species to improve air quality its important to note some have the potential to worsen it!





# Designing green space and green infrastructure

## Long term management and maintenance

It is key provision is made for long term management and maintenance post development.

This is critical to ensure function and benefits are sustained over time (Building with Nature 2019).



### Case study – Barrack Lane

The current development team at Linc Cymru inherited the management of some planters planted with ivy originally acquired by the previous development team. The planters are an important feature of Barrack Lane's green space, a development in Cardiff city centre. During the hot summer of 2018 much of the ivy died. This raised concerns with tenants about the degrading aesthetics of the area. Dead ivy could also not provide any of the benefits of the live ivy (flowers providing food for pollinators and berries for birds).

The ivy died because no management or maintenance was put in place. This ultimately led to more time and money in replanting the area. We test planted different species to see which would grow well in the conditions and created a new management scheme with the advice of a horticulturalist.

Although it gave the opportunity to increase the diversity of planting, it would have been best to start with biodiverse planting with provision made for long term management and maintenance.

# Designing green space and green infrastructure

---

## Well-being

Green infrastructure should be designed to benefit people's well-being. It should be;

- Accessible
- Inclusive (designed to recognise needs of local people)
- Provide seasonal enjoyment
- Create social cohesion
- Reduce health inequalities

## Water

Water in high quality green infrastructure should be;

- Effectively managed (both quantity and quality)
- Increase flood resilience
- Maximise opportunities for biodiversity

## Wildlife

High quality green infrastructure;

- Contributes to reversing declining biodiversity
- Connects habitat within scheme boundaries
- Creates locally relevant habitat
- Has linkages to wider landscape
- Is constructed sensitively (opportunities to protect and enhance biodiversity are taken during planning and construction)

(Building with Nature 2019)





# Summary

# Summary

---

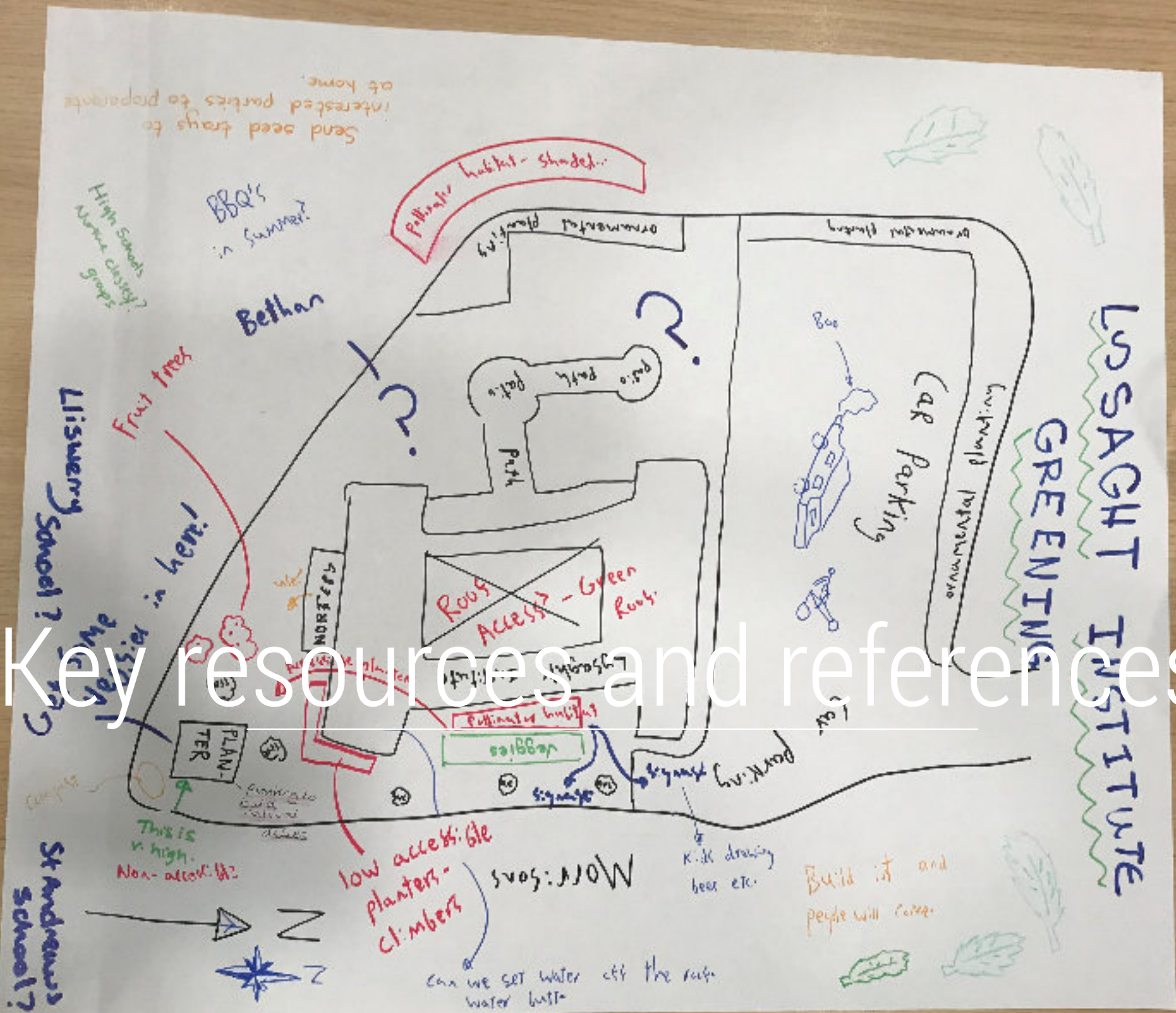
## What does a housing association look like using this good practice?

One that recognises and delivers the benefits of increasing access to high quality green space and green infrastructure.

One that does this by;

- Closely working with tenants and community in a meaningful way from ideas to implementation and facilitating community led projects.
- Collaborating with expert partners, other housing associations, tenants and departments within their own organisation.
- Putting resource behind green space and designs high quality green space and green infrastructure in their new developments.

# Key resources and references



# Key resources

---

## Key resources

- Town and Country Planning Association green infrastructure research database - <https://www.tcpa.org.uk/green-infrastructure-research-database>
- The Building with Nature User Guide - <https://www.buildingwithnature.org.uk/how-to-start>
- The Emors Gate website – high quality wildflower seeds and management - <https://wildseed.co.uk>
- Free trees for schools and communities - <https://www.woodlandtrust.org.uk/plant-trees/schools-and-communities/>
- Green Flag - <https://www.keepwalestidy.cymru/Pages/Category/greenflag>
- Your local Public Service Board well-being plan and your local biodiversity action plan
- The local community and expert partners!
- The references below

# References

---

## References

- Bragg, R. et al. 2013. *Measuring connection to nature in children aged 8 - 12: A robust methodology for the RSPB* [Online]. Available at: <https://www.rspb.org.uk/globalassets/downloads/documents/positions/education/measuring-connection-to-nature-in-children-aged-8--12--methodology.pdf> [Accessed 14/11/18].
- Building with Nature. 2019. *Building with Nature User Guide* [Online]. Available at: <https://www.buildingwithnature.org.uk/how-to-start> [Accessed 5/11/19].
- Cabe Space. 2005. *Start with the park* [Online]. Available at: <http://webarchive.nationalarchives.gov.uk/20110118142335/http://www.cabe.org.uk/files/start-with-the-park.pdf> [Accessed 02/11/18].
- Garden Organic and Sustain. 2014. *The benefits of gardening and food growing for health and wellbeing* [Online]. Available at: [https://www.gardenorganic.org.uk/sites/www.gardenorganic.org.uk/files/GrowingHealth\\_BenefitsReport\\_0.pdf](https://www.gardenorganic.org.uk/sites/www.gardenorganic.org.uk/files/GrowingHealth_BenefitsReport_0.pdf) [Accessed 15/11/18].
- Groves, L. and McNish, H. 2011. *A longitudinal study of the Forestry Commission - Merrylee Primary School – Glasgow City Council partnership 2008-2011* [Online]. Available at: <http://outdoorplayandlearning.org.uk/wp-content/uploads/2016/07/naturalplaystudyfull-1.pdf> [Accessed 13/11/19].
- IACCF. 2010. *Biodiversity and Climate Change in the UK*. Peterborough: JNCC.
- Lefevre, C. E. (Date unknown). *The Behaviour Change Wheel in Action - applying behaviour change methods and techniques to environmental issues* [Online]. Available at: [https://www1.bps.org.uk/system/files/user-files/Division%20of%20Occupational%20Psychology/public/The%20Behaviour%20Change%20Wheel%20in%20Action%20\\_Sept2016.pdf](https://www1.bps.org.uk/system/files/user-files/Division%20of%20Occupational%20Psychology/public/The%20Behaviour%20Change%20Wheel%20in%20Action%20_Sept2016.pdf) [Accessed 05/11/19].
- Natural England. 2009. *Green Infrastructure Guidance* [Online]. Available at: <http://publications.naturalengland.org.uk/publication/35033> [Accessed 02/11/18].

# References

---

- Natural Resources Wales. 2016. *The State of Natural Resources Report (SoNaRR) 2016* [Online]. Available at: <https://naturalresources.wales/evidence-and-data/research-and-reports/the-state-of-natural-resources-report-assessment-of-the-sustainable-management-of-natural-resources/?lang=en> [Accessed 26/10/18].
- Russell, C. 2015. *Asset Based Community Development (ABCD): Looking Back to Look Forward*. Online: Cormac Russell.
- Scholz, T. et al. 2018. Cooling Effects and Regulating Ecosystem Services Provided by Urban Trees—Novel Analysis Approaches Using Urban Tree Cadastre Data. *Sustainability* 10(712), doi:10.3390/su10030712.
- Sinnott, D. et al. 2017. *Building with Nature - a new benchmark for green infrastructure* [Online]. Available at: <http://eprints.uwe.ac.uk/33406/1/Sinnott%20et%20al%202017%20Building%20with%20nature.pdf> [Accessed 13/11/19].
- Stewart, H. et al. 2004. *Trees and Sustainable Urban Air Quality*. Centre for Ecology and Hydrology and Lancaster University [Online]. Available at: <http://www.es.lancs.ac.uk/people/cnh/UrbanTreesBrochure.pdf> [Accessed 16/11/18].
- Stowe, M. 2019. *A case study report of the Tre Cwm Environmental Regeneration Scheme*. Wales: Cartrefi Conwy.
- TCPA. 2004. *Biodiversity by Design A Guide for Sustainable Communities* [Online]. Available at: <https://www.veronica.cz/uses/Biodiversity%20by%20Design.pdf> [Accessed 20/11/18].
- Welsh Government. 2015. *Well-being of Future Generations (Wales) Act 2015 The Essentials* [Online]. Available at: <https://futuregenerations.wales/wp-content/uploads/2017/02/150623-guide-to-the-fg-act-en.pdf> [Accessed 14/11/19].
- Wildlife Trusts Wales. 2016. *Green Infrastructure: A Catalyst For Wellbeing Of Future Generations In Wales* [Online]. Available at: [http://www.wtwales.org/sites/default/files/green\\_infrastructure.pdf](http://www.wtwales.org/sites/default/files/green_infrastructure.pdf) [Accessed 02/11/18].