



City Quays Gardens Belfast Harbour

One Planet Living® Leadership review
April 2024



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Report overview

Report overview

Scheme:

City Quays Gardens (CQG), Belfast, UK

Developer:

Belfast Harbour Commissioners (BHC)

Project type:

Public park

Description:

City Quays Gardens is a public space within the wider regeneration of the 2,000-acre Belfast Harbour estate. The Gardens front the historic Harbour Office, incorporating green space, planted areas, flexible event areas, gathering spaces and civic artworks that together create a unique sense of place out of what was once an underused car park.

Reviewer:

Nicole Lazarus

One Planet Living Board sign-off and quality review:

Ronan Leyden

Date of review:

April 2024



Leadership status:



One Planet
Living®

Global
Leader 2024

Bioregional and One Planet Living

Bioregional and One Planet Living

About Bioregional

Bioregional is a purpose-led, international sustainability consultancy. It has worked in over 20 countries on sustainable development, working with local communities, cities, and companies.

Bioregional devised the One Planet Living framework, based on our experiences creating the multi-award-winning BedZED in South London, the UK's first large-scale sustainable community. One Planet Living has guided the development of real estate across the world, shaping exemplar communities that enable sustainable living.

About One Planet Living

One Planet Living® is a vision of a world where it is easy and attractive to live happy, healthy lives within the limits of our Earth's resources.

We need this vision because if everyone lived as we do in Western Europe, we would need almost three planets to support us. The measure of this is called 'ecological footprinting'. Meanwhile, many lack what they need for a good life, and wildlife is being pushed out to make room for our demands.

The One Planet Living framework consists of 10 principles which cover the activities that drive resource consumption, and the elements that form the basis of a good life for everyone. The principles are used to identify the needs in a local area, to relate these to the planetary bottom-line, and then to structure responses to those needs.

	Health and happiness	Encouraging active, social, meaningful lives to promote good health and wellbeing
	Equity and local economy	Creating safe, equitable places to live and work which support local prosperity and international fair trade
	Culture and community	Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living
	Land and nature	Protecting and restoring land for the benefit of people and wildlife
	Sustainable water	Using water efficiently, protecting local water resources and reducing flooding and drought
	Local and sustainable food	Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein
	Travel and transport	Reducing the need to travel, encouraging walking, cycling and low carbon transport
	Materials and products	Using materials from sustainable sources and promoting products which help people reduce consumption.
	Zero waste	Reducing consumption, re-using and recycling to achieve zero waste and zero pollution
	Zero carbon energy	Making buildings and manufacturing energy efficient and supplying all energy with renewables



One Planet
Living®

A framework
by Bioregional

What is a One Planet Living Leadership review?

One Planet Living Leaders are outstanding projects that showcase the very best use of our One Planet Living framework and a gold standard in placemaking. There are hundreds of One Planet Living projects around the world, but only the very best achieve Leadership recognition.

A Leadership review involves opening your action plan to scrutiny from a suitably qualified expert from Bioregional (or one appointed by us). It will include:

- Reviewing the action plan as a whole and providing advice and suggestions on how it might be improved.
- Evaluating it against several criteria including impact, systems change, ambition and delivery.
- Assessing the action plan against the One Planet Living goals and guidance and local industry best practice.
- You can then discuss whether your action plan could be a candidate for leadership recognition.

About this Leadership review

This document reviews the City Quays Gardens action plan, in the context of the wider regeneration of Belfast Harbour.



Review summary and highlights

Leadership review summary

When built, City Quays Gardens (CQG) will be the first public realm project to receive One Planet Living endorsement. It will also be the first One Planet Living Leader in Northern Ireland.

The project is an exemplar in creative placemaking. The ambitions in the action plan are comprehensive across all 10 principles.

The outcome of this review is to recognise City Quays Gardens as a One Planet Living Leader 2024.



One Planet
Living® | Leader
2024



Leadership review highlights

- ❑ CQG is particularly strong on the Culture & Community principle. The design has been led by landscape architects, Gillespies and creates an imaginative new place to gather and relax, with flexible spaces for events.
- ❑ The new garden will celebrate the harbour's considerable heritage by transforming the area around the listed Harbour Office. The design allows for salvaging, refurbishing and reinstating the historic Harbour Office railings to their original location whilst also restoring and reusing the existing granite cobbles.
- ❑ The team have commissioned a unique combination of public works of art, celebrating the heritage of the area, from gateway structures to wayfinding pieces, to interesting swing seats, the artworks will be talking points and destinations.
- ❑ The choice to use this brownfield site location, where an underused car park is being restored to both nature and public realm, was a conscious land use decision by BHC in preference to developing two office block developments.
- ❑ The garden will provide an attractive rest stop for walkers on the Maritime Mile and for cyclists on the National Cycle Network route 93.
- ❑ CQG is fully integrated with plans for the wider redevelopment of Belfast Harbour, which aims to achieve net zero operational GHG emissions by 2030, to improve air and water quality in the harbour area, including piloting the reintroduction of oyster beds.
- ❑ CQG will be zero carbon in operation, using energy efficiency best practice, REGO certified renewable procurement in the short term and an on-site solar PV array is being investigated

Comment from Nicholas Cowan, Head of Sustainability at Belfast Harbour



We've put people, wellbeing, and sustainability at the centre of the design and purpose of City Quays Gardens, with our strong focus on climate action, resource efficiency and biodiversity, we believe that the new Gardens will contribute to Belfast Harbour's sustainability goal of reaching Net-Zero (carbon) by 2030 and enhance the wellbeing of local communities and visitors alike.

Overall Leadership qualities

Overall leadership qualities

The criteria are awarded colour-coded ratings from 1-5

- 5 Well addressed
- 4 Well addressed but additional suggestions provided
- 3 Partly addressed but additional content needed
- 2 Not adequately addressed
- 1 Not addressed

	Highlights	Opportunities
Scope	The project team have carried out a thorough context analysis assessing current local, regional and planetary needs. Baseline resources such as the Ulster Wildlife Trust biodiversity audit and the Maritime Belfast Story Plan have sparked rich and creative placemaking ideas. All 10 OPL principles have been addressed. All significant impacts and opportunities have been or are being addressed.	
Transformation	CQG is transformative in terms of placemaking and culture. As part of a well-planned, ambitious, wider redevelopment of the harbour area, CQG transforms an unloved and underused car park into an exciting destination. The site could have been used for two additional office blocks. Indeed, outline planning permission had already been granted for them, but the Belfast Harbour team chose to return this space to nature and to create a memorable public realm. The project team have adopted the One Planet Living framework in a serious and committed way by using it for context analysis, creating an action plan and then seeking leadership recognition.	

5

5

Overall leadership qualities

	Highlights	Opportunities
Ambition	The outcomes in the action plan are comprehensive and align with One Planet Living. The project is consistently targeting good practice across all 10 principles. It goes beyond that on some principles, most notably on Culture & Community, but also by targeting zero carbon in operations, and in the wider harbour redevelopment, ambitions to boost marine biodiversity are particularly exciting.	
Implementation	The action plan sets out a comprehensive set of measures at this construction stage to deliver the project’s ambitions. With the contractor already appointed and about to start on site there is high confidence in construction stage deliverability.	Operational activities such as the programme of events and sustainability guidelines are still under development. But with a growing focus on sustainability at BHC and with such thorough context setting and project ambitions, Bioregional has confidence that the next post-construction phases will be well addressed and aligned with One Planet Living by the time of the next OPL Progress Review.

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Action plan summary

Action plan summary

Bioregional uses a simple colour-coded approach to indicate how well the action plan addresses the One Planet Living principle and their goals.

- 5 Well addressed
- 4 Well addressed but additional suggestions provided
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Highlights

CQG has been designed to provide a green oasis, a safe all-year-round destination, with fun works of art providing places to sit, meet, work and attend events.

Air quality improvements will be achieved by removing cars from this location, by planting a mix of coniferous and deciduous trees and by tracking the installed AQ monitors.

Safety measures include carefully designed lighting, cameras and subtly designed low concrete planting walls provide anti-terror crowd protection for events on the lawns and plaza spaces. A defibrillator is being installed just outside the boundaries of the garden. Belfast Harbour police are one of the oldest constabularies in the UK.

The garden is designed to be accessible to all. It will promote active travel, time outdoors and connection with nature.

5



Highlights

The park and possible outdoor work pods (in post-phase 1) make the new office space an attractive place to work and do business; so they may attract more or better employers and jobs.

Once the garden is constructed, BHC are committed to an inclusive programme of events there.

2



Opportunities

For future phases of development, proposals are being explored to provide work pods, offering outdoor but sheltered spaces for working or meeting, with charge points and 5G reception.

An events strategy is due to be produced by April 2025. This will demonstrate how the events programme will be inclusive and accessible to all, especially to more deprived and marginalised communities.

Perhaps there is an opportunity for the landscape maintenance plans to include apprentices or people with learning difficulties/mental health challenges.

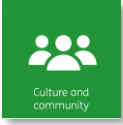


Highlights

CQG is primarily a culture and community project. It excels on this principle. The project transforms an underused car park of no community value to an exciting, attractive, imaginative environment where people can spend time, meet, relax and enjoy a wide variety of events.

The project team have commissioned a superb array of unique, bespoke art installations for the gardens. These will create talking point destinations and “Instagram moments”. Images of some are used in this report. They include:

- ❑ The Nest gateway structure, inspired by “a ship's Crow's Nest, but referencing a return to nature from the industrial via a bird's nest inspired aesthetic”.
- ❑ The Boats, bronze sculptures of boat hulls viewed from below, as if from underwater. These are being cast using an ancient repousse technique, using just a quarter of the metal needed for conventional casting and corresponding energy savings.
- ❑ A “Together We Prosper” screen by Malcolm Robertson



Highlights continued

- ❑ Bespoke swings and seating created from curved glulam
- ❑ A wayfinding compass cast in the paved main entrance to the garden.

These artworks were developed in conjunction with the Maritime Belfast Trust and their Maritime Mile, a walkway with stop off points. Each work was influenced by a Maritime Belfast Story Plan, an amazing resource for design teams setting out Belfast's history for the purpose of inspiring creative regeneration.

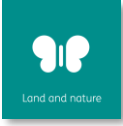
For **Heritage**, the new garden will transform the area around the listed Harbour Office and the design allows for salvaging, refurbishing and reinstating the historic Harbour Office railings to their original location.

For **community involvement**, the team undertook an impressive voluntary pre-application community consultation, with both physical events and digital participation.

For **sustainability culture**, the Property & Place team are preparing an events policy and a food charter. They will design a rolling events programme for the garden, using the variety of flexible spaces. Sustainability guidelines will be drawn up for all event providers.

Carbon literacy training is being rolled out for the BH senior leadership team, with plans to pass that knowledge on in targeted ways to teams such as procurement team, engineers etc

Northstone, the contractors will provide sustainability toolbox talks on site as well as their existing sustainability training for core staff. They will submit monthly sustainability reports, as well as social value, safety and waste management reports.



Highlights

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CQG delivers immediate land and nature benefits by converting a car park into a landscaped public space with trees and thoughtful planting. The scheme aims to enhance biodiversity, improve air quality, create shade and shelter, improve connections to nature and to reflect the natural regional Lagan Valley landscape.

As part of the wider Belfast Harbour redevelopment, Ulster Wildlife Trust carried out a complete biodiversity audit in 2011, then again in 2021. The intention is to commission further audits in 2026 and then every 5 years. The 2021 audit resulted in recommendations for plant species beneficial to the area which are being incorporated into the CQG planting schedule. For example, tulips and daffodils are being replaced with crocuses and alliums.

CQG contains themed planting zones such as coastal planting to deal with the harsh location, a woodland glade area, ornamental planting and a good mix of trees and hedges.

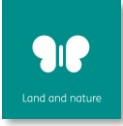
Peat-free organic fertiliser is specified for construction stage.

Existing mature oak trees are being mostly retained and 89 new trees will be planted to replace the 21 being removed. Robust coastal tree species will be used closer to the waterfront while pine trees will be used around the Harbour Office.

The landscape architects have used a biophyllic design approach, providing multiple ways to make contact with, and be in, nature. Biodiversity educational signage is planned

Ulster Wildlife Trust are working with Belfast Harbour, installing an oyster nursey in the port to help restore the native population, improve water quality and boost marine biodiversity. The nursery is the first of its kind to be introduced to a commercial shipping channel in Northern Ireland. With appropriate maintenance and care, the oysters will form reefs, providing habitats for a variety of other marine species. The oysters help to improve water quality in the port. By removing particles from the water column, the oysters also increase light penetration to the sediment and promote the recovery of seagrasses, another threatened and valuable coastal habitat.

Action plan summary continued



Opportunities

The construction stage specification allows for any pest control products and is not constrained in any way, so ideally this should be amended to allow only natural pest control during the first 12 months until handover.

A 30-year landscape management plan will be created once the planting schedule is fixed. This will ideally specify organic fertilisers and natural pest control. The team are considering bug hotels to encourage ladybirds as an example of natural pest control.

Potentially roll out the floating garden habitats in the dock.

Potential roll out of oyster beds and eventually the harbour water quality can be greatly improved.

5



Highlights

The project aims to address climate change and flood risk issues, integrating its drainage design with the Belfast Tidal Flood Alleviation Scheme.

The project will result in 'no additional water use'. This is achieved through the use of drought tolerant planting (perennials and grasses) and a greywater irrigation system. A 26,000 litre attenuation tank will collect surface water to provide drip irrigation to trees and planting areas.

Any mains water consumption at pop up points will be metered.

This new green space will slow and reduce surface water runoff compared with the current hardstanding car park. Drainage design will follow the CIRIA SuDS manual. Permeable paving and rain garden areas will attenuate surface water run-off and contribute to sustainable drainage.

5

Action plan summary continued



Highlights

The project aims to create a garden that promotes healthy and sustainable diets and showcases local producers to visitors.

3

Opportunities

In future phases of the City Quays Gardens scheme, opportunities for edible planting and vertical growing systems are being explored. Also opportunities for showcasing local and sustainable food suppliers as part of the overall events strategy. The BHC are also considering a sustainable food charter for phase 2 which includes a food hall.



Highlights

The site will be inviting to active travel with the National Cycle Network route 93 passing through the centre of the gardens, as well as good pedestrian permeability. The intention is that the gardens can become a rest-stop for NCN cyclists and will link to a future foot and cycle bridge as part of the Maritime Mile walk. The scheme will therefore provide good wayfinding signage at entrances to the site.

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Walking routes to the nearest bus and rail stops are being developed and will be signposted with an estimated walking time.

Belfast Bikes hire scheme will be relocated to the entrance of the gardens, with space for expansion within the Phase 1 works.

There is no parking within the garden. However, on the ground floor of the centralised multistorey car park, serving the whole harbour, there are EV charging points.

The scheme includes a bike repair station and Sheffield stand cycle parking with an intercom to Belfast Harbour Police, internal CCTV coverage and lighting.

Opportunities

Opportunities for live departure boards are being reviewed and are already installed in existing buildings.



Highlights

4

Existing granite cobbles will be lifted and re-laid in the traditional fantail pattern on the central shared pedestrian/cycle route. The existing railings will also be refurbished and reused.

Durable elements will be used throughout the garden wherever possible e.g. granite slabs, setts and walls; blue limestone flag paving; naturally very durable hardwood seats and tables.

The design reuses existing stone on site and includes locally-sourced Irish and Carlow Blue limestone, minimising transport emissions.

The landscape specification will ensure that only PEFC/FSC certified timber is used and there is a “no use of peat” clause in the specification.

The projects’ Considerate Constructors target score is >32. To achieve this score will require good practice in sustainable materials procurement. The contractor holds ISO 14001 Environmental Management Systems accreditation.

Opportunities

The specification does not currently include a requirement for cement substitution in the concrete foundations to structures. There is an opportunity to reduce embodied carbon even further by introducing this.

Is the paving stonework imported? If so, where from? Does it comply with BES 6001 and does the supply chain tackle anti-slavery?

Any hardwood timber should be FSC certified and should not include any species on the IUCN red list.

For operational materials, the future sustainability guidance for events, and also the landscape management plan, will need to encourage sustainable procurement and circular economy practices.

Action plan summary continued



Highlights

Construction stage waste will be minimised by reusing all the existing granite floor cobbles. Most of the garden's fixtures will arrive at the site pre-manufactured so there will be minimal site waste. Some paving slab offcuts will be wasted and otherwise, a Site Waste Management Plan will deal with good site practice and waste avoidance. Any leftover paving materials will be stockpiled for future phases.

The contractor is also registered with the Considerate Constructors' scheme which has specific requirements around waste management.

For operational waste, the garden will have general waste bins and mixed recycling bins. The waste contractor will sort all waste after collection.

Opportunities

Any outlets onsite will need to meet the forthcoming Belfast Harbour Commissioners sustainability guidelines on waste. There may be opportunities to focus in on particular waste components such as coffee cups.

4



Highlights

The gardens will be net zero carbon in operation by using best practice energy efficiency, by planning for future solar PV supply, and by procuring REGO certified renewable electricity in the meantime.

The project specifies high efficiency LED lighting. Energy demand will be minimised through automatic photocell and timing controls that prevent lights operating during daylight hours or outside agreed hours of operation.

All the electricity consumed at Belfast Harbour is 100% REGO certified green electricity.

4

Action plan summary continued



Opportunities

Temporary events and stands will also consume plug in electricity but providers will be required to follow sustainability guidance which includes energy efficiency requirements.

The refurbishment of the adjacent William Ritchie building will include a new roof that is structurally able to take a solar PV installation, planned for 2026-27. Ducting to connect this future array to the garden is being installed now as the gardens are built.

Batteries may be considered for the future to make greater use of PV output.