CONNECTING NATURE

NATURE-BASED SOLUTIONS FRAMEWORK

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Prelude

Nature-based solutions are sustainable solutions to respond to climate change pressures and changing socio-economic demands to city's infrastructures. They are valid alternatives to grey infrastructure investments that when designed and implemented carefully and effectively can deliver multiple benefits and in this way help our cities achieve strategic goals for sustainability, climate and social resilience, liveability and inclusion. Whereas there is mounting evidence for their effectiveness and the multiple types of nature-based solutions that can improve urban living, the design and the way to implement them requires tailoring to every city's context.

For this tailoring and translation of knowledge to fit every city's reality, co-production of knowledge is an essential mechanism. This document is exactly this, a framework co-produced between cities, researchers and small businesses (including consultancy services) that bring together all the necessary dimensions for a successful and effective implementation of nature-based solutions in cities. This framework is an output of collaboration of Connecting Nature project team and it is set to not only capture the lessons and knowledge co-created during the process of implementation but also serve as a framework for future exploitation/expansion of nature-based solutions in the cities.

The Connecting Nature Framework has the following main objectives:

- To facilitate learning and internal and external communication by the Connecting Nature cities with regard to how they are developing and scaling their NBS exemplar;
- To serve as a process initiation tools that helps other cities to push NBS excellence. This means that the framework should be operational in its application on showing how to implement existing urban planning agendas and programs. As such every city needs to present operational knowledge gained and local urban innovations during the implementation of the nature-based solution exemplar.

To achieve these objectives, the framework provides knowledge about

- The nature-based solution exemplar at the centre by showing a full 360-degree implementation process. As such every city needs to show how the exemplar implementation connected and amplified local urban innovation across the different elements;
- Connection of planning-ready inputs to the strategic agendas of the cities for dealing with climate change. As such every city has to explicitly address how the exemplar connects and delivers on urban or climate agendas/targets of the city;
- Showcases how state-of-the-art knowledge on nature-based solutions from every one of the elements advanced urban planning and city-making;
- Presents how different policy areas and goals interrelate for the successful and effective implementation of the nature-based solution exemplar through the elements (financing, indicators, governance, entrepreneurship. etc.). As such cities have to report how the implementation of the nature-based solution exemplar affected their cross-departmental collaborations.

NBS Framework building blocks

The Connecting Nature Framework for implementing Nature-Based solutions in cities comprises of four structural elements:

- Impact Indicators, being co-developed with cities and science partners into a Reference Framework that is adaptable to every city context and open to inputs over time;
- Technical Solutions, reporting the detailed design of the nature-based solution exemplar and its features;
- Financing, including the different sources of finances for the implementation of the exemplar as well as its long-term plan for maintenance and operation by the city and/or other urban actors and Business model, being co-developed with cities, SMEs and science partners to inform a new approach on the exemplar as a local business spin-off and attractor.
- Entrepreneurship exploring the potential of NBS to stimulate new market and business opportunities

For the formulation of those structural elements that are fundamental for the implementation of the nature-based solution exemplar, three processes are vital and are included in the Connecting Nature Framework as process elements:

- Co-creation, is the process of active involvement and part-taking in the making of all structural elements;
- Reflexive monitoring, is the process of facilitated, continuous and adaptive monitoring and assessment of the whole process of co-creation to capture lessons learnt and on time valorize them into the planning/implementation process;
- Governance, is the process of connecting different actors across sectors under the same vision of the nature-based solution exemplar for the city and facilitating that they are actively engaged and informed about the co-creation and reflexive monitoring.

For every one of these seven elements of the Connecting Nature Framework, cities and science partners have formulated guidebooks that include:

- Guiding questions to prompt cities to reflect and to report on every element;
- Support tools, process guidelines, methodologies and approaches to aid cities in developing and delivering on the framework elements

The guidebooks are the reports that focus on (and capture) the knowledge transfer across cities and science partners as well as SMEs, and aim to be applicable to more nature-based solutions' projects in the future. The guidebooks are to be used as appendices to the framework reports for every city.

1. Introduction: Glasgow Open Space Strategy

"Nature – based solutions are actions which are inspired by, supported by or copied from nature. Many NBS result in multiple co – benefits for health, the economy, society and the environment, and thus can represent more efficient and cost-effective solutions than more traditional approaches. Often these are referred to as blue / green infrastructure."

There is a growing recognition that there are lots of terms used to describe actions in the space between buildings (and even on buildings). Legislation in Scotland, UK and Europe talks about Green infrastructure, Green Networks, ecosystem management, Greenspace and Open Space. We talk about land for drainage; land for leisure; land for education; land for development; vacant and derelict land; land for climate mitigation and land for biodiversity. In fact it's all the same land that can deliver multifunctional benefits for society, economy and the environment. Over the last few years the EU has been leading research into how you can deliver multiple benefits by understanding and planning holistically for places and spaces.

The purpose of this document is to demonstrate to internal and external stakeholders how Glasgow is using these guiding principles to develop a strategy which focuses on open spaces and their connection with the urban environment. This, legally binding strategy, has been produced through the Connecting Nature project and it focuses on all aspects of Glasgow's open spaces, including green, blue and grey space.

1.1 History of Glasgow's Open Spaces

Glasgow is a vibrant, exciting City which has a unique character. Its grand historic areas and buildings and growing collection of striking contemporary architecture make a substantial contribution to the City's sense of place.

Individual streets, spaces, buildings and waterways are all important in making the City recognisable; however the character and identity of the City is reflected by the way these elements are combined to form a complex and dynamic whole. Its current identity is significantly shaped by the way physical regeneration has sought to respond to periods of industrial and urban growth and decline.

These factors, and the attempts to address them, have also played a significant role in influencing the lives of Glasgow's residents. The health of Glasgow's population and extent of health inequalities have been intrinsically linked to these periods of change, and the strong connection between physical environment and health must form a key part of how the City seeks to manage future change.

Experience has shown that efforts to address the City's physical legacy and improve the environment have been successful where they have sought to address, not only appearance and context, but also anticipate the full range of benefits and opportunities that new development can generate in how people interact with and benefit from their environment.

The city recognises that good quality, well-linked open spaces can help provide a range of benefits, including: amenity; a setting for the urban area; biodiversity; growing spaces; active travel; recreation; and flood management (including SUDS), all of which can improve health and are essential to a sustainable and economically competitive city.

As the city's population grows there will be an increasing demand on all open spaces to deliver a wide range of benefits and meeting these demands is going to be important in ensuring that Glasgow is

well-equipped to deal with the challenges of the 21st century and to enhance the attractiveness of the City as a place in which to live and invest.

1.2 National and International Policy Context

There is a growing awareness environmentally and now politically that open spaces within the urban environment and the connections between them, should be a focus within policy making at a national and international level. This section details some of the policy drivers which have informed Glasgow's decision making and the eventual development of the 'Open Space Strategy' and any succeeding NbS initiatives.

The Scottish Government published a Planning Advice Note (PAN 65) in 2008 which noted the importance of dedicating resourcing to improving open spaces. The PAN states that some of the best open spaces are part of networks. It suggests that local authorities should aim to maintain or form networks of green and civic spaces which, amongst other things, "maintain and enhance environmental qualities; provide a range of opportunities for recreation and leisure; link and create wildlife habitats; and encourage walking and cycling". PAN 65 also highlights the role which green spaces play in creating long-lasting, beautiful places, indicating that, to achieve this, green and civic spaces must be fit for purpose and have a relationship with the surrounding buildings and uses, and the movements through them. The proper provision, management and maintenance of open space are key aspects of good design.

PAN 65 sets out further detail on the preparation of Open Space Strategies indicating that different types of open space require to be considered separately. This can be thought of as 'supply-led', 'demand-led' and 'standards-based' approaches:

- Spaces most suited to a supply-led approach are, for example, urban parks and gardens, civic spaces, woodlands and other natural greenspaces. This should assess the existing size and distribution of spaces against their current and future role and allow for the formulation of a strategy that protects and enhances these spaces, extending and linking them where feasible.
- A demand-led approach is suited to those spaces for which a quantifiable demand can be identified, for example, sports facilities and functional spaces such as cemeteries and allotments.
- Where the need for a type of space is broadly the same everywhere, it may be appropriate to use a standards-based approach. Standards should be carefully tailored to the circumstances of the area and different standards are likely to be required for different functions.

In 2012 the Scottish Government published Green Infrastructure: Design and Placemaking. This document highlights the multiple benefits of incorporating green infrastructure into new developments, stating that "improving the quality of our urban and rural environments is vital if we are to deliver on our ambition to make Scotland a greener, wealthier and fairer, smarter, healthier and stronger, country. Green infrastructure is a way to support all of these strands". It states that Development Plans and Supplementary Guidance should set the context upfront to support green infrastructure thinking at the design and masterplan level.

Also in 2012, Scottish Natural Heritage published Green Networks in Development Planning. It sets out how to provide development planning advice on green networks, including on their multi-functionality. It recognises that well-planned and designed green networks can create attractive settings for daily life and distinctive local identities for places. It states that green networks are not an isolated or solely an environmental concern but can help deliver better, more sustainable places

and address the core purposes of development planning: by forming an integral, cross cutting and spatially defined component of economic, social and environmental change in any particular area.

It recommends that a Local Development Plan provides a basis for the strategic requirements to protect and enhance the green network, through policies and spatial proposals that safeguard and avoid fragmentation of existing green networks and identify opportunities to create or enhance existing green network assets.

In May 2013, the European Commission published a new strategy for encouraging the use of green infrastructure. The Communication "Green Infrastructure - Enhancing Europe's Natural Capital" indicates that Green Infrastructure is a successfully tested tool for providing ecological, economic and social benefits through natural solutions, stating that it helps avoid relying on infrastructure that is expensive to build and which nature can often provide cheaper.

As Glasgow has large areas of open space of varying quality, the publication of these policies and the mounting awareness of the importance of urban open space has resulted in the development of the Open Space Strategy and accompanying Open Space Masterplan.

1.3 Aims and benefits of open space

Open spaces are important for our quality of life. They provide the setting for a wide range of social interactions and pursuits that support personal and community well-being. They allow individuals to interact with the natural environment and provide habitats for wildlife. They can also be important in defining the character and identity of settlements. Connecting them in a green network can provide enhanced benefits for people, the environment and biodiversity. New areas of open space of enduring quality and value have, however, been the exception rather than the rule and existing spaces are under pressure not just from physical development but also from poor management and maintenance."

The proper provision, management and maintenance of open space are key aspects of good design.

The quality of Glasgow's open spaces, and their ability to deliver a range of benefits for the City's people, is a key determinant of Glaswegians' quality of life. Good quality open spaces, as part of a wider, integrated green network, can help deliver:

- a *HEALTHIER* Glasgow by providing opportunities to:
    - play, engage in formal sports, walk cycle and grow food;
    - meet and engage with others in the local community, helping encourage well-being and social cohesion;
    - engage with the natural world, helping enhance well-being and providing opportunities for environmental education and outdoor learning;
    - tackle air and water quality issues.

- a more *LIVEABLE* Glasgow by:
    - providing for access to good quality, safe and attractive open space for informal recreation and relaxation in the local area;
    - providing an enhanced setting for the City, creating a sense of place and welcoming places in which to live and spend time;

- creating a more attractive City, helping to attract new businesses and retain existing businesses as they develop and grow; and
- improving the City's neighbourhoods for existing and future residents.

- a more **RESILIENT** Glasgow by providing opportunities for:
  - managing surface water during heavy rainfall, helping reduce flooding and its impacts;
  - adapting to climate change by providing the space and connections to allow habitats and species to adapt to new conditions;
  - mitigating the effects of climate change, including removing carbon from the atmosphere and offering potential for renewable energy and heat.

Delivering a healthier, more liveable and more resilient Glasgow forms the core of the Open Space Strategy Vision, which is outlined later.

Delivering this vision is not the responsibility of any single Council Service. It is, therefore, vital that the Council co-ordinates the management and use of open spaces corporately and collaboratively, to maximise benefit for the City.

The Open Space Strategy sets out an approach to co-ordinate the various open space responsibilities to ensure well-managed, well-located and well-connected open spaces that operate as part of a wider green network, helping to deliver:

- greater awareness of the value of open space and of individual open spaces throughout Glasgow, informing their protection and management;
- a strategic rationale for the future use and management of the City's open spaces, providing guidance on:
  - priorities for investment in open space;
  - opportunities for using other open spaces less intensively; and
  - an informed basis on which to make decisions about open space disposal, where an open space may be of little value
- a basis for greater partnership working with other organisations that have an interest – e.g. with the NHS in how open spaces improve health;
- a framework for cross-departmental engagement and the co-ordination of spending plans to help secure best value; and
- a stronger basis for securing additional funding to help maximise open space benefits by promoting the value of open space and its benefits.

Along with these broader outcomes, the Open Space Strategy will help deliver the aspirations of the City Development Plan (CDP) and play a key role in developing the Council's spatial strategy in future iterations of the Plan. The draft Supplementary Guidance SG6: Green Belt and Green Network was prepared to align with the OSS and the two documents will direct the approach towards developer contributions relating to Open Space in the future.

1.4 The Open Space Strategy

Planning Advice Note 65 sets out details on the preparation of Open Space Strategies indicating that different types of open space require to be considered separately. This can be thought of as 'supply-led', 'demand-led' and 'standards-based' approaches:

- Spaces most suited to a supply-led approach are, for example, urban parks and gardens, civic spaces, woodlands and other natural greenspaces. This should assess the existing size and distribution of spaces against their current and future role and allow for the formulation of a strategy that protects and enhances these spaces, extending and linking them where feasible.
- A demand-led approach is suited to those spaces for which a quantifiable demand can be identified, for example, sports facilities and functional spaces such as cemeteries and allotments.
- All open spaces whether existing or new require to be "fit for function" and therefore of a certain standard. It may therefore be appropriate to use a standards-based approach. Standards should be carefully tailored to the circumstances of the area and different standards are likely to be required for different types of open space and for different urban areas. In Glasgow the typologies defined by Planning advice note 65 are used and we have designed a standards methodology based on three different types of area within the city – City Centre; inner urban and outer urban

Standards should contain three elements:

- quality – a benchmark against which quality can be measured;
- quantity – an amount of space per house unit or head of population; and
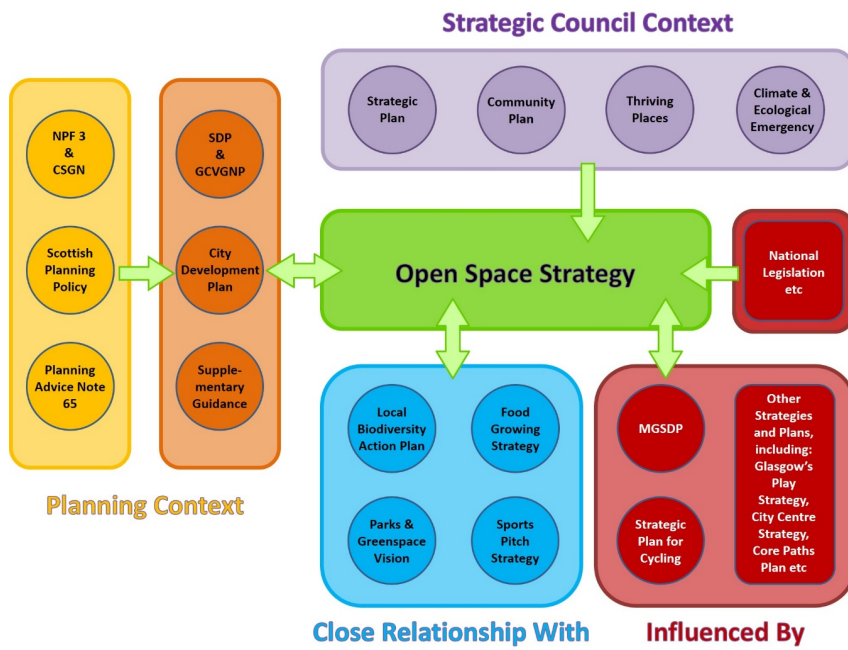- accessibility – distance thresholds for particular types of open space

An Open Space Strategy for the City will help address this changing context and the changing role of open space. The Strategy sets out an approach for considering the different ways in which the people of Glasgow will need to make use of open space, now and in the future, if the City is to successfully meet the demands set out above. This process is being facilitated by the EU's Horizon 2020 Connecting Nature programme. This will help identify, co-create, design, finance and upscaling "nature based solutions" to some of the challenges facing Glasgow whilst delivering associated benefits for the City.

There is also a recognition that the Strategy will have to be delivered in a challenging financial climate that is delivering fewer resources to create new open spaces, or enhance and maintain existing ones. The strategy sets out an overarching approach to the City's open spaces, providing strategic direction that will guide the work, policy-making and investment decisions of all Council services and other members of the Council family, to deliver an effective and fully-functioning green network of open spaces and other green infrastructure interventions that will continue to allow Glasgow to flourish in future.

The output from the Connecting Nature project will be to development of a number of Nature-Based Solution exemplars for Glasgow. The main exemplar is the Open Space Strategy and the ongoing development of the Local Context documents (Openspace masterplans). We have identified that the exemplar should look to improve the quality, quantity and accessibility of open space by:

- Delivering opportunity mapping for the whole city by combining city-wide spatial data sets
- Developing better understanding the quality, quantity and accessibility of our open space
- Establishing an evidence-base for better informed decision-making
- Identifying new top-down and bottom-up opportunities for NBS and integrated green infrastructure
- Strengthening new and existing partnership arrangements
- Stimulating business growth and innovation in relation to NBS
- Facilitating community action in relation to NBS

The following diagram demonstrates the relationship between the OSS and other strategic documents developed by the Council.

Strategic Council Context

- Strategic Plan
- Community Plan
- Thriving Places
- Climate & Ecological Emergency

Open Space Strategy

National Legislation etc

Planning Context

- NPF 3 & CSGN
- Scottish Planning Policy
- Planning Advice Note 65
- SDP & GCVGNP
- City Development Plan
- Supplementary Guidance

Close Relationship With

- Local Biodiversity Action Plan
- Food Growing Strategy
- Parks & Greenspace Vision
- Sports Pitch Strategy

Influenced By

- MGSDP
- Strategic Plan for Cycling
- Other Strategies and Plans, including: Glasgow's Play Strategy, City Centre Strategy, Core Paths Plan etc

2. Technical Solutions: What is the nature-based solutions exemplar for Glasgow?

2.1 The Wider Context

The Open Space Strategy (OSS) has been drafted to reflect a wider context including the Scottish Government's Scottish Planning Policy (SPP) and Planning Advice Note 65 (PAN 65): Planning & Open Space, the Council's Strategic Plan and the Community Plan. It is also aligned closely with the City Development Plan (CDP) and will inform the use of supplementary guidance and the CDP Action Programme going forward. The preparation of the OSS also involves collaboration with other emerging strategies, such as the refreshed Local Biodiversity Action Plan, the Sports Pitch Strategy, the Parks and Greenspace Vision and the Food Growing Strategy.

All of these emerging strategies are now engaging with the tools and techniques that Connecting Nature are developing to create better and more colloborative documents. The Nature Based solutions business model canvas is informing discussions around food growing; the need to develop quality data around fit for function sports facilities is shaping the work on the sports pitch strategy and Parks and greenspace vision relies on the Open Space opportunity mapping to help identify new ways to manage the Council's Open space asset. The diagram below shows how the different strategies and action plans link to the Open Space Strategy.
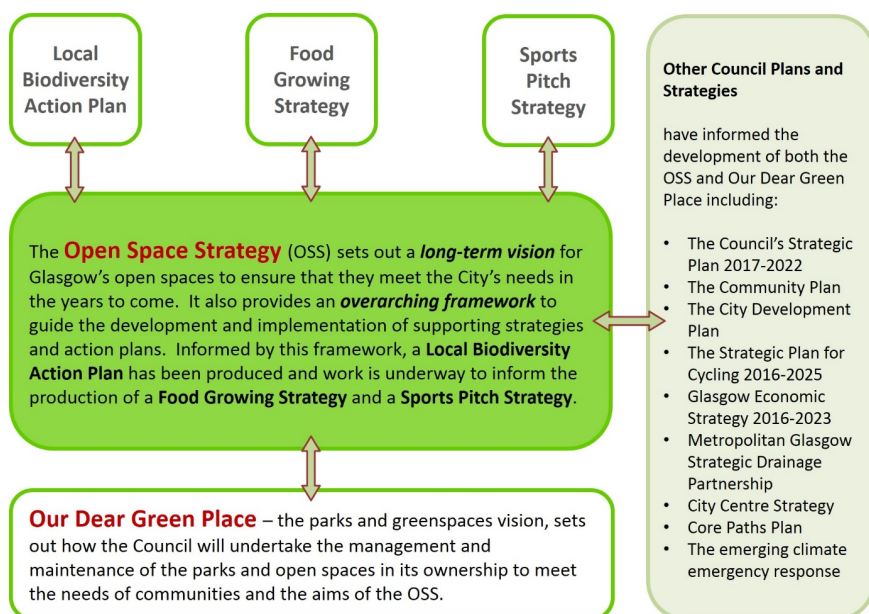
By aligning the aspiration of these various strategies with the OSS, it is anticipated that the Strategy will play a key role in helping to deliver aspects of all of them.

2.2 Informing the Open space Strategy (OSS)

To accord with PAN 65, the Scottish Government's guidance document on the relationship between the planning system and open space, the OSS has been informed by:

- an audit of open space in the form of the Glasgow Open Space Map. The Open Space Map identifies the extent, type and spatial distribution of the open spaces protected through the City Development Plan;
- an assessment of the quality of two of the most usable categories of open space shown on the Open Space Map – public parks & gardens and amenity residential space over 0.3ha; and
- an analysis of accessibility to these key spaces to highlight areas that are potentially well-served by good quality spaces and those that are less so.

In line with PAN 65, this analysis has been used to develop a set of open space standards for Glasgow based upon the following: (These do not apply to the City Centre, where a different approach, aligned with the City Centre Strategy, is proposed):

- an **Accessibility Standard** - aimed at delivering access to a good quality open space, of >0.3ha, within a 400m walk of people's homes;
- a **Quality Standard** – to ensure the open spaces used to meet the Accessibility Standard are of good quality in terms of usability and multi-functionality; and
- a **Quantity Standard** – to ensure there is enough open space, per head of population, in each part of the City. Different quantity standards apply to the Inner Urban Area (where residential population densities are higher) and the Outer Urban Area.

This key data can then be used to inform:

- the planning process, through the CDP and SG6, establishing when and to what extent developer contributions will be required to enhance existing, or deliver new, open space; and
- the Council's spending decisions, including where to invest to meet deficiencies in access or quality.

Open Space Strategy Structure
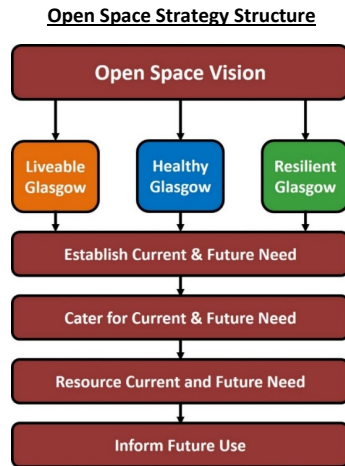
Furthermore, by identifying open space priorities and opportunities the OSS will inform future strategic land use decisions in the next City Development Plan including delivery of Housing and Economic Development. Some of the early work on assessing the Open spaces has identified that further work needs to be done on the methodology that is being used to assess quality of the different types of open space. We have gaps in understanding of what makes a good quality open space, particularly in relation to the blue and grey open spaces and to demand led spaces.

We also need to explore further what is meant by accessibility. As although we take as a measure, actual walking distance to the open space this does not make any allowances for cultural accessibility. Thus there may be spaces that are within easy walking distance but there is a perception that those spaces are only for certain parts of the population.

2.3 Asset Management

The recently published Property and land strategy for the city states that the four key documents that the strategy must align to are:

- Council Strategic Plan
- The City Development Plan
- **The Open Space Strategy**
- Glasgow Community Plan

It states that "Our property and land are part of the fabric of the city and local communities. They are the key to how the city and local neighbourhoods look and thrive, help celebrate our heritage and provide opportunities for investment in the city and local areas. They play a significant role in the support and delivery of council and other services and can help us reshape these around the needs of people and neighbourhoods. Our land and property are the city's assets and we need to collectively reimagine and rethink how they are used by, and with, the people of Glasgow."

2.4 Open Space Strategy Action Programme

The Open Space Strategy sets out a long-term vision for Glasgow's open spaces to ensure that they meet the City's needs in years to come. The Action Programme establishes the implementation plan for the next five years and there is an intention to monitor the progress of the plan annually – more in-depth and frequent monitoring will be developed during the lifetime of the strategy.

The full Action Programme has been shared below:

A Vision for Glasgow's Open Space

No	Action	Lead/Partners	Timescale	Funding
1	We will engage with local communities in the preparation of Stage 2 Local Contexts to ensure the City's open spaces provide for their needs.	DRS/GCC Land & Environment Services/General Public/Horizon 2020 (H2020)	2018-2021	GCC

A Liveable Glasgow

No	Action	Lead/Partners	Timescale	Funding
2	We will work to identify, improve and create Community Spaces that can provide for local access to good quality open space for communities throughout the City.	DRS/LES/General Public	2018-2019	GCC/Development Industry /Other funding sources
3	We will pursue opportunities to enhance public access to larger open spaces in Penilee, Yoker, Lambhill/Milton, Robroyston, Lochend and Broomhouse.	DRS/LES/Other partners	Ongoing	GCC/Development Industry/Other funding sources
4	We will work to deliver new publicly usable open spaces in areas of the City where the Quantity Standard is not met.	DRS/LES/Development Industry	Ongoing	GCC/Development Industry/Other funding sources
5	We will undertake a review of existing landscape designation boundaries and justifications.	DRS/LES/SNH	2018-2019	GCC
6	We will use public consultation and engagement to inform the development of Green Network Masterplanning, updates of the Open Space Map and the final form of this Open Space Strategy.	DRS/LES/SEPA/MGSDP/SNH/ H2020/Other partners	2018-2021	GCC/H2020
7	We will consider the need for new civic spaces to serve major development schemes and regeneration projects.	DRS/LES	Ongoing	GCC/Development Industry

A Healthy Glasgow

No	Action	Lead/Partners	Timescale	Funding
8	We will work with children, young people and others in local communities when considering the future distribution of formal play spaces across the City.	DRS/LES/Communities	2018-2021	GCC
9	We will work to assess the quality of publicly usable open spaces to help determine their suitability for informal play and to identify opportunities for improvement.	DRS/LES/GCVGNP	Ongoing	GCC/GCVGNP
10	We will work with pupils to investigate the potential for re-imagining school grounds to provide benefits for biodiversity, outdoor learning, relaxation and stimulating play.	GCC Education	Ongoing	GCC/Other partners (MGSDP etc.)
11	We will work to deliver the additional nursery capacity needed to meet 1140 hours in a way that ensures outdoor learning becomes a key component of every child's early learning experience.			
12	We will undertake an Outdoor Sports Study for the City with Glasgow Life and Sportscotland.	DRS/Glasgow Life/Sportscotland	2018-2019	GCC/Glasgow Life/Sportscotland
13	We will produce and consult on a Food Growing Strategy for the City and will identify land that	LES	2018-2020	GCC/Development Industry

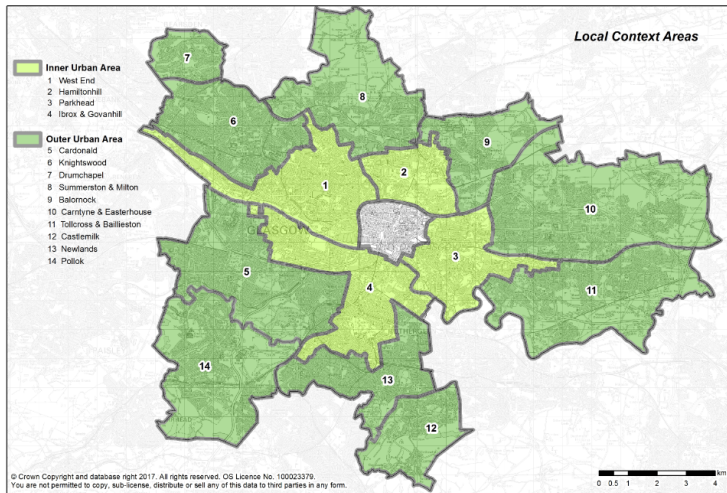|				
	could be used for allotment sites or community growing.			
14	The Council will continue to support communities wishing to make temporary use of stalled spaces.	DRS/Communities/ Landowners	Ongoing	GCC
15	We will support the growth of the local food economy and will work with local growers to do so.	LES/DRS	Ongoing	Local Food Growers/GCC
16	We will work with the GCVGNP to identify options for better off-road walking and cycling links between key city destinations.	DRS/GCVGNP/LES	2018-2020	GCC/H2020

A Resilient Glasgow

No	Action	Lead/Partners	Timescale	Funding
17	We will ensure that investment made through the MGSDP delivers associated green network benefits that support the aims of this Strategy.	DRS/MGSDP/H2020	Ongoing	GCC/MGSDP/H2020
18	We will investigate options for new Local Nature Reserves with a view to providing 1 ha of LNR per 1000 population.	LES/DRS	Ongoing	GCC
19	We will consider how open space in Council ownership can be maintained to enhance the extent and diversity of existing habitats and help deliver the actions set out in the LBAP habitat action plans.	LES	Ongoing	GCC
20	We will work with the GCVGNP to identify options for enhancing the quality and connectivity of the City's habitats.	DRS/LES/GCVGNP/SNH/Other Partners	2018-2019	GCC
21	We will investigate the potential of the City's open spaces to deliver renewable energy and heat and whether any associated financial savings could be used to help deliver the ambitions of this Strategy.	DRS/LES/H2020	2018-2021	GCC
22	We will assess the potential of the City's open spaces for carbon sequestration.	DRS/LES/H2020	2018-2021	GCC/H2020

Resourcing Need

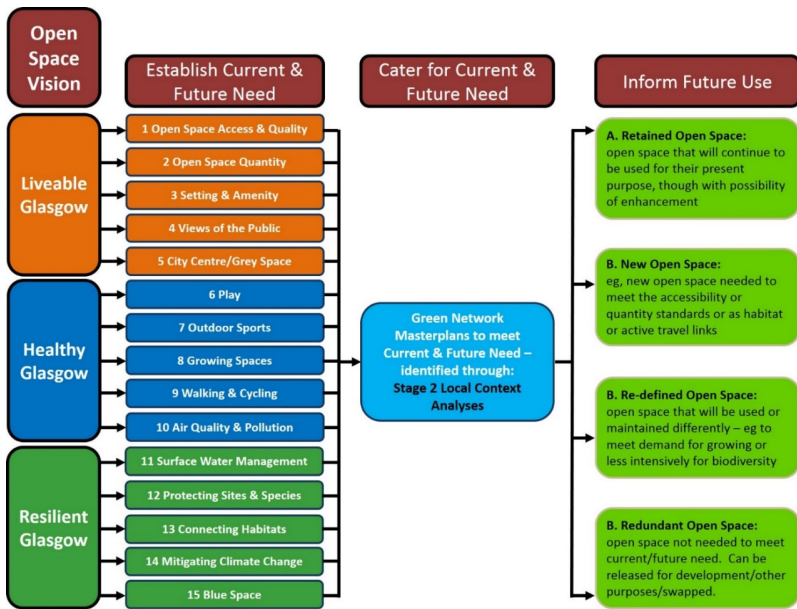| No	Action	Lead/Partners	Timescale	Funding
23	We will consider options for more fully recognising and reflecting the value of the range of functions open space provides for the City in our budgetary and decision making processes.	GCC Chief Executive's Department/City Property/All Council Services/H2020	Ongoing	GCC
24	We will work with the Scottish Government and other partners to identify opportunities for innovative approaches to investing in open space delivery and enhancement that will have wider benefits for society and the economy.	GCC/NHS Scotland/Scottish Government/Other Partners/H2020	Ongoing	GCC/NHS/Scottish Government/Others/ H2020
25	We will continue to work to maximise opportunities for external funding for capital enhancements to the City's open spaces to address current and future need.	DRS/LES/H2020	Ongoing	GCC
26	We will use the Stage 2 LCA process to help identify open spaces that can be used for a different open space purpose or for a non-open space purpose and whether doing so will help free up resources to help deliver this Open Space Strategy.	DRS/LES/H2020/Local Communities	2018-2021	GCC/H2020

2.5 Consultation and Local Context

The views of the public and communities will also be critical in establishing current and future need. Public consultation responses to the OSS will start to provide an understanding of this but, in order to help focus on local open space issues, engagement will also take place on "*Local Context*" documents at the same time. This is a key area where it is really important to ensure that we are collaborating with the different communities of interest that are in each area. These Local Context documents are being prepared in two stages. The Stage 1 documents set out what are considered to be the key open space issues in each of 15 local areas of the City (see map below) which, together, cover the whole of Glasgow.

Local Context Areas

Inner Urban Area
1 West End
2 Hamiltonhill
3 Parkhead
4 Ibrox & Govanhill

Outer Urban Area
5 Cardonald
6 Knightswood
7 Drumchapel
8 Summerston & Milton
9 Balornock
10 Carntyne & Easterhouse
11 Tollcross & Baillieston
12 Castlemilk
13 Newlands
14 Pollok

Stage 1 Local Contexts contain an initial analysis of the Accessibility, Quality and Quantity Standards in each area to identify potential deficiencies in each, together with other considerations such as the coverage of environmental designations and access to core paths. This tangible information will support meaningful engagement with communities on open space issues in their area.

The **Stage 2 Local Context** process will consider all of the demands on open space identified through the OSS process, and how best these can be delivered in a holistic, multi-functional manner. The Stage 2 process is being facilitated by the EU's Horizon 2020 Connecting Nature programme. This is funding three posts, to help identify opportunities to deliver "nature-based solutions" to some of the challenges facing the City (e.g. climate change) whilst delivering benefits such as increased biodiversity, energy production and the promotion of social cohesion. Community engagement will again be a key part of the process. The Connecting Nature team will work closely with the mainstream Open Space Team within the Development Plan Group to develop guidance on how to implement Nature Based Solutions both through taking opportunities to retrofit within existing Open Spaces (Blue, grey & green) and buildings and also ensuring that Nature Based Solutions are an integral component part of any new development within the city. Pilot projects will be developed by the team to prove concept and take the risk aware route to testing in real world situations so that policy and guidance can be informed and improved. Fundamentally we are looking to unlock the power of the data to help us "sweat the assets" and focus a lens on the positive financial benefits of mainstreaming Nature based solutions.

Because of the close relationship between Supplementary Guidance 6 (SG6) and the OSS, it is considered possible that the draft SG6, published for public consultation in April 2017, may have to be revised to ensure consistency with the OSS. Should this be the case, further public consultation on a revised SG6 will also be necessary. The diagram on the next page shows how we propose to assess our protected open spaces and the proposed outcomes we expect to guide actions.

Open Space Vision

Establish Current & Future Need
- 1 Open Space Access & Quality
- 2 Open Space Quantity
- 3 Setting & Amenity
- 4 Views of the Public
- 5 City Centre/Grey Space
- 6 Play
- 7 Outdoor Sports
- 8 Growing Spaces
- 9 Walking & Cycling
- 10 Air Quality & Pollution
- 11 Surface Water Management
- 12 Protecting Sites & Species
- 13 Connecting Habitats
- 14 Mitigating Climate Change
- 15 Blue Space

Liveable Glasgow
Healthy Glasgow
Resilient Glasgow

Cater for Current & Future Need

Green Network Masterplans to meet Current & Future Need – identified through: **Stage 2 Local Context Analyses**

Inform Future Use

A. Retained Open Space: open space that will continue to be used for their present purpose, though with possibility of enhancement

B. New Open Space: eg, new open space needed to meet the accessibility or quantity standards or as habitat or active travel links

B. Re-defined Open Space: open space that will be used or maintained differently – eg to meet demand for growing or less intensively for biodiversity

B. Redundant Open Space: open space not needed to meet current/future need. Can be released for development/other purposes/swapped.

2.6 Resilience and Climate Adaption

Resilience in the face of climate change is a central component of the Open Space Strategy and will be taken forward in the Local Context Area Stage 2 documents which will identify areas that can contribute to reducing the negative impacts of urban heat island effect, carbon capture, flooding. Mitigation / adaption could take the form of heat pumps, district heating, biomass energy alternatives, solar energy production, water-source heat and hydro-electric power generation.

The scale of the benefits will in part, be determined by the size of the sites identified which will give a better picture as to their overall impact scale. It would be expected that pilot demonstrator projects would be identified as part of the LCA2 process.

3.0 Indicators and Monitoring

3.1 Introduction

The main objectives and vision for the Open Space Strategy is to have created a network of good quality, well-distributed, multi-functional open spaces, and connecting infrastructure by 2050, that contributes positively to:

- Outcome 1: The City's **Liveability**, increasing its attractiveness as a place in which to live, work, study and invest;
- Outcome 2: the **health and wellbeing** of the City's human population and of tis flora and fauna;
- Outcome 3: the long term **resilience** of the City in relation to the threats, and potential opportunities, arising from climate change and other external factors such as reducing budgets.

Communities will have access to good quality, multi-functional open spaces, that are used by all sectors of society, within a short walk of their homes and to a wider, better integrated, network of green, blue and grey spaces that provide multiple benefits for people and the environment.

The value of Glasgow's Open Spaces in helping address many of the critical issues facing the City will be widely understood and reflected in the decisions made by the Council and its partners. The Action Programme outlines a timeline for achieving the objectives of the Open Space Strategy.

The impact of implementing the Open Space Strategy should be felt at all city levels – macro, meso and micro. As the strategy is looking to improve the city as a whole then all areas of the city should be affected and improved. At each open space site the impacts of the enhancements should be at both neighbourhood and street level.

The time spent between action and effect is not quantifiable at present, however, localized mental and physical health benefits should be immediate. Increased biodiversity and long term health issues within neighbourhoods will take longer to be tangibly recorded.

The implementation of the Open Space Strategy is an iterative process and each objective aims to boost the effect of another. The aim to have improved access to good quality open space should boost health and wellbeing across the city and therefore there should be a reduction in the Scottish Index of Multiple Deprivation data. There are no objectives within the Strategy which conflict with one another and therefore all objectives should work in tandem to achieve the shared vision for the city.

As the Open Space Strategy aims to improve open space across the city, there is no specific social group that will exclusively benefit from its implementation. The strategy aims to improve the health, well-being and social cohesion of communities in all areas of the city.

While the intention of the strategy is to assess all areas of the city and improve the open spaces within all neighbourhoods, it could be perceived from reading the strategy that the higher density areas of the city will be the first to be focused on as they are the most deficient in open space. In the case of Glasgow, however, the areas which have been identified as most deficient are also the areas of the highest wealth. This could potentially create tensions and perceived trade-offs among social groups and is something that the Council will be taking into consideration during the implementation of the strategy.

3.2 Indicators

At the start of the Connecting Nature project, the project partners worked with the front-runner cities to establish a list of topics that are relevant to each city and therefore require data to measure the effect of any NBS work in the future. These topics were defined as 'indicators' and span the subjects of socio-economics, health and wellbeing, and the environment. Following the establishment of the indicators, they were classified as 'core' (i.e. essential) or 'feature' (i.e. may not be relevant in all cases) and Glasgow was asked to confirm if/what data were available for each indicator and whether there were plans to continue collecting such data in the future.

Two rounds of research were undertaken in the summer of 2019, to identify potential data sources for the indicators and build a baseline for the City of Glasgow. The first round looked at the core indicators and the second round looked at all remaining indicators and reviewed the data sources for the core ones.

Collaboration with colleagues within Glasgow City Council and other organisations was essential to identifying the right data sources; The National Health Service ("NHS") Greater Glasgow and Clyde was a critical source of social and health data, which were collected for nine areas across Glasgow. Internal departments within Glasgow City Council were instrumental in identifying economic data, such as numbers and locations of businesses, or biological species data after liaising with the Biological Records Centre. In terms of environmental data, Glasgow Caledonian University was able to provide data on air temperature measurements in the city centre, while one of the Council's departments shared their data on sustainable drainage systems. The Scottish Government's data portals were used to extract data on air quality and business innovation.

For some indicators, however, it was difficult to find relevant data sources across organisations; These were mainly qualitative topics such as 'Community Empowerment', 'Environmental Education Opportunities' and 'Social Desirability', which are generally non-quantifiable and results are usually available at local scale. This was an issue, as the data source-gathering exercises already undertaken, were based on the entirety of Glasgow City; nevertheless, it is expected that the data collection process will be ongoing, whereby both the indicators and the associated data, will be continuously reviewed as specific NBS projects start emerging.

The requirement indicators' review also became evident when some requests for data could not be actioned by colleagues within the specified timescales; as such, it is expected that further responses will be received in due course, which in turn will change the status of some indicators which have currently been marked as 'maybe available'.

As NBS projects emerge, the project-specific data requirements will be reviewed and data collection processes will be put in place to monitor the progress of these projects in delivering socio-economic, health-related and environmental benefits to the community. This is only possible if baseline data are available for the specific area; if that's not the case, then the requirement for baseline data will be reviewed by the Connecting Nature team and any required data collection campaigns will be undertaken prior to starting work on the NBS project.

Finally, all data already gathered as part of the first two rounds will be visualised within the next couple of months in an online map/dashboard format to assist in the decision-making process around potential NBS sites. This web interface will be 'live', with any new data visualised as they become available. The format of the web map/dashboard will be reviewed regularly to make sure it fits with the objectives of both our team and the wider Glasgow City Council.

3.3 Interactive – Assessment Planning Tool (I-APT)

Work with Connecting Nature partners on the development of the Interactive – Assessment Planning Tool (I-APT) will help us identify the correct indicators to use for each asset that could be used for Nature Based Solutions. The output from this tool is possibly proposed to include natural capital account documents; infograms; policy background information; asset management tools; case studies; videos etc. We are working with The University of A Corunna and OPPLA to develop Beta version.
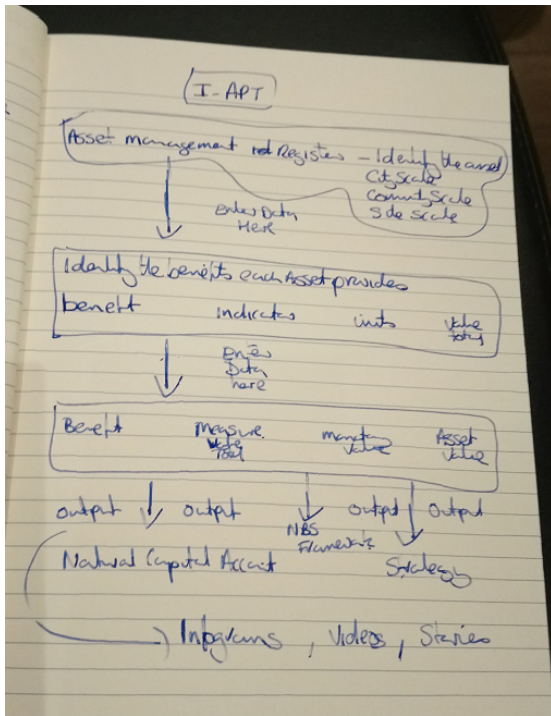
4. Existing Legal and Governance Structures

4.1 Introduction

The responsibility for the delivery of the Open Space Strategy sits with the Development and Regeneration Service of Glasgow City Council. We work closely with colleagues in other services and other parts of the Glasgow family, like Glasgow Life who have responsibility for formal sports and cultural life, to ensure that the guidance is implemented when spatial planning decisions are made. The Open Space Strategy is a sibling document to the Statutory City Development Plan and as of June 2019 it also has statutory status. As explained in previous chapters the work on the Connecting Nature Project using the Open Space Strategy as an exemplar delivers on the Council's key objectives to create a healthy, liveable and resilient city. This is becoming particularly important in light of the recent declaration of a climate emergency by the city leaders.

The diagram below shows the inter-relationship between the Open space strategy and the decision making.

4.2 Linking to Objectives

Work has been undertaken, by the University of East London, whilst researching governance practices for OSS to link our City Development Plan and the Cities Strategic Plan to the UN Sustainable development Goals. The diagram that follows shows the links that the Strategic plan makes and how Connecting Nature actions support the Council in delivering on these goals.
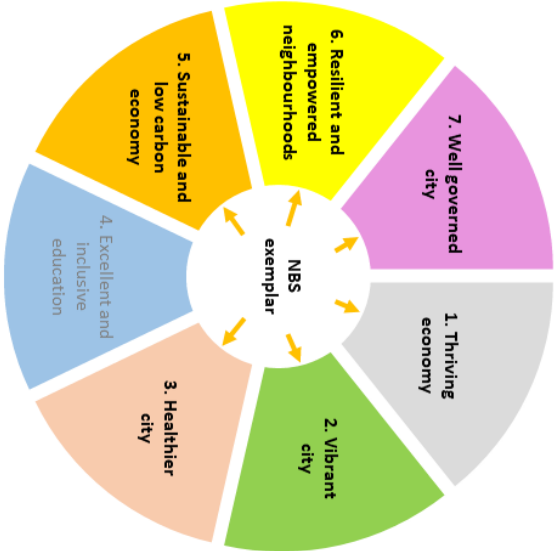
7. WELL GOVERNED CITY

EKLIPSE Framework
1. Climate mitigation/adaptation
2. Water management
3. Coastal resilience
4. Green space management
5. Air quality
6. Urban regeneration
7. Participatory planning & governance
8. Social justice & cohesion
9. Public health and wellbeing
10. Economy opportunities & green jobs

CONNECTING Nature
1. Climate change adaptation/resilience
2. Health and wellbeing
3. Social cohesion
4. Economic development potential
5. Green business opportunities

UN Sustainable Development Goals

6. RESILIENT AND EMPOWERED NEIGHBOURHOODS

EKLIPSE Framework
1. Climate mitigation/adaptation
2. Water management
3. Coastal resilience
4. Green space management
5. Air quality
6. Urban regeneration
7. Participatory planning & governance
8. Social justice & cohesion
9. Public health and wellbeing
10. Economy opportunities & green jobs

CONNECTING Nature
1. Climate change adaptation/resilience
2. Health and wellbeing
3. Social cohesion
4. Economic development potential
5. Green business opportunities

UN Sustainable Development Goals

5. SUSTAINABLE AND LOW CARBON ECONOMY

EKLIPSE Framework
1. Climate mitigation/adaptation
2. Water management
3. Coastal resilience
4. Green space management
5. Air quality
6. Urban regeneration
7. Participatory planning & governance
8. Social justice & cohesion
9. Public health and wellbeing
10. Economy opportunities & green jobs

CONNECTING Nature
1. Climate change adaptation/resilience
2. Health and wellbeing
3. Social cohesion
4. Economic development potential
5. Green business opportunities

UN Sustainable Development Goals

4. EXCELLENT AND INCLUSIVE EDUCATION

EKLIPSE Framework
1. Climate mitigation/adaptation
2. Water management
3. Coastal resilience
4. Green space management
5. Air quality
6. Urban regeneration
7. Participatory planning & governance
8. Social justice & cohesion
9. Public health and wellbeing
10. Economy opportunities & green jobs

CONNECTING Nature
1. Climate change adaptation/resilience
2. Health and wellbeing
3. Social cohesion
4. Economic development potential
5. Green business opportunities

UN Sustainable Development Goals

3. HEALTHIER CITY

EKLIPSE Framework
1. Climate mitigation/adaptation
2. Water management
3. Coastal resilience
4. Green space management
5. Air quality
6. Urban regeneration
7. Participatory planning & governance
8. Social justice & cohesion
9. Public health and wellbeing
10. Economy opportunities & green jobs

CONNECTING Nature
1. Climate change adaptation/resilience
2. Health and wellbeing
3. Social cohesion
4. Economic development potential
5. Green business opportunities

UN Sustainable Development Goals

2. VIBRANT CITY

EKLIPSE Framework
1. Climate mitigation/adaptation
2. Water management
3. Coastal resilience
4. Green space management
5. Air quality
6. Urban regeneration
7. Participatory planning & governance
8. Social justice & cohesion
9. Public health and wellbeing
10. Economy opportunities & green jobs

CONNECTING Nature
1. Climate change adaptation/resilience
2. Health and wellbeing
3. Social cohesion
4. Economic development potential
5. Green business opportunities

UN Sustainable Development Goals

1. THRIVING ECONOMY

EKLIPSE Framework
1. Climate mitigation/adaptation
2. Water management
3. Coastal resilience
4. Green space management
5. Air quality
6. Urban regeneration
7. Participatory planning & governance
8. Social justice & cohesion
9. Public health and wellbeing
10. Economy opportunities & green jobs

CONNECTING Nature
1. Climate change adaptation/resilience
2. Health and wellbeing
3. Social cohesion
4. Economic development potential
5. Green business opportunities

UN Sustainable Development Goals

Central wheel diagram:

NBS exemplar

- 1. Thriving economy
- 2. Vibrant city
- 3. Healthier city
- 4. Excellent and inclusive education
- 5. Sustainable and low carbon economy
- 6. Resilient and empowered neighbourhoods
- 7. Well governed city

Education *inc:*
- Environmental education
- Outdoor learning and play
- School estate

Chief Executive *inc:*
Facilitating community groups to buy, lease, manage or occupy land

Development & Regeneration *inc:*
- Planning Policy & delivery
- Open Space Protection
- Open space projects
- Outdoor Access
- Opportunity Mapping
- Flood Risk Management

Neighbourhoods & Sustainability *inc:*
- Open Space provision, funding and management
- Events & activities
- Promoting active travel
- Infrastructure
- Food Growing Strategy

Glasgow Life *inc:*
- Sports facility provision and management
- Play, sports & cultural events and activities in parks and open spaces

City Property (Glasgow) *inc:*
Management, development and disposal of the Council's non-operational surplus land and property

Community Safety Glasgow *inc:*
Partnership working to deliver a safer, cleaner, better Glasgow

The diagram above demonstrates the relationship between the Open Space Strategy and other strategic documents developed by the Council. The Open Space Strategy sits above a suite of documents that all aim to contribute to improving Glasgow's open space offer. The Open Space Strategy has been prepared in response to the requirements set out in Scottish Planning Policy (SPP) (2014), the National Planning Framework (NPF) 3 (2014) and the guidance set out in Planning Advice Note 65 (PAN 65): Planning and Open Space (2008) as described in the introduction.

In responding to these requirements, the Strategy has been drafted to reflect the specific circumstances of Glasgow. Documents such as the Council's Strategic Plan 2017-2022 and the Glasgow Community Plan set out the key aspirations of the Council and its partners in relation to a wide variety of matters that the Open Space Strategy can help address. Other influences have been taken into account, including legislation such as the Community Empowerment Act (Scotland) Act 2015 and the recently adopted planning legislation.

Critically, the Strategy recognises that the wider ambitions set out in national, regional and local policies and strategies need to be considered in the context of shrinking public finances. Whilst this can have a direct impact on the Council's ability to fund the upkeep and delivery of open space, it shouldn't limit the City's ambitions for securing as wide a range of public benefits as possible from our open spaces. Well managed, designed and located open space can help enhance:

- the health of Glasgow's inhabitants;
- the liveability of the City, increasing its attractiveness for people and investment; and
- the resilience of the City to threats such as existing flood risk and climate change.

The strategy recognises the wider benefits that open space can bring to the City and its inhabitants. A new perspective on how it is funded and maintained is required to ensure these benefits are realised.

The Open Space Strategy (OSS) is due to be officially adopted in the autumn of 2019 after a period of extensive consultation and analysis. The Planning (Scotland) Bill passed on 20th June 2019 made the preparation and publication of an Open Space Strategy a statutory duty of a Planning Authority. This will make the Open Space Strategy a legally binding document in relation to Spatial planning decisions and the asset management decisions that the Council will make. Therefore, it is worth noting that, at this time, the Open Space Strategy is still in the initial stages of implementation and its legacy is to evolve throughout the lifespan of the Connecting Nature project and beyond. The adjacent image provides a snapshot of the Open Space Strategy map that is being developed to identify the opportunities for improvement across the city.
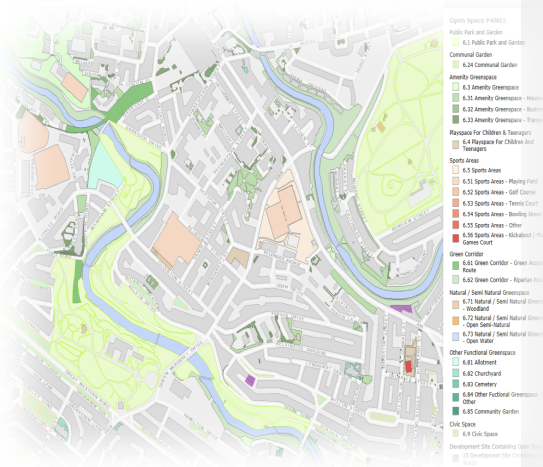
4.3 The Glasgow Connecting Nature Team

The Connecting Nature team are embedded within the Development Plan Group and work closely with colleagues to produce and implement the open space strategy. The team aim to ensure the open space strategy is focussed on delivering coordinated nature-based solutions across the city into the longer term.

At the moment, the senior and junior project officers as well as other actors take responsibility for evaluating, monitoring and incepting projects on the ground. Ultimately, the project lead will be accountable to internal management structures, local democratic systems and broader European governance structures.

Beyond this, each team member has different roles: the project lead carries out high level strategic activities; senior and junior project officers carry out more local level discussions as well some discussions at European level; and the technical officer is responsible for data collection and mapping tasks.

4.4 Collaborators

Glasgow's Open Space Strategy is a city wide policy-based approach that will assist with upscaling nature-based solutions and therefore a broad range of partners, stakeholders and beneficiaries are involved. Other actors may have different governance structures and these are currently being explored.

Currently, the Connecting Nature team are working in partnership with Greenspace Scotland to improve stakeholder mapping and facilitating community engagement events in three areas of the city. These will map where nature-based solution projects are ongoing or expected to be initiated in each area. The events will also encourage further collaboration amongst actors and hopefully lead to greater collaboration and co-production of nature based solutions in each area.

To date, setting up this formal partnership with an established organisation with relevant expertise and existing governance structures helps to share the responsibility for delivering on project objectives. It also provides local contacts, expertise and more manpower on the ground. Having this level of input from an established organisation that shares similar objectives ensures we can link new or on-going nature-based solution projects and they're associated stakeholders and beneficiaries to our emerging Open Space Strategy. Formal and informal partnerships created as a result of the Connecting Nature project have already started to result in a positive legacy for nature-based solutions within Glasgow. Creating a wider interconnected network has helped raise the profile of this emerging policy concept to audiences who may have previously been unaware of the benefits of nature-based solutions. As the project progresses, we expect this positive legacy to continue through both local and national networks. Therefore collaborative working practices are helping to localise, scale up (or out) and embed nature-based solution concepts within the city.

In relation to other stakeholders and beneficiaries, the project will and does involve many other actors. The main stakeholders include our European partners including partner cities and academic leads who help to share knowledge and provide monitoring/analysis structures; various Glasgow City Council departments such as Neighbourhoods and Sustainability, City Deal regeneration teams and other teams within Development and Regeneration Services; community interest groups; members of the public; local businesses; and, in the longer term, other institutions such as the National Health Service and local schools. Whilst the Open Space Strategy is city wide, we have agreed with Greenspace Scotland to focus on three geographical areas within the city. These areas feature high levels of deprivation and include many underused open spaces. The main stakeholders and beneficiaries here will be those deprived communities and other local.

4.5 Organisational Project Structure

During the lifetime of the Connecting Nature Project, governance at a strategic level is mainly set by the project's position within existing Glasgow City Council and European Commission structures. At the moment, governance structures are implemented directly by the team members or other local government officials and this depends on the specific nature-based solution project (such as the emerging food growing strategy or the city centre rain garden trials). This is likely to continue in the short to medium term. An aspiration would be that governance structures are tailored to the local conditions to ensure a positive long-term legacy beyond the official project completion date.

Historic nature-based solution case studies in Glasgow have been largely guided and implemented with a firm top-down governance approach set within an established strategic and local policy environment. Governance structures have not always been consistent, partly because projects have been planned and implemented by different actors, often working in silos. Another main issue with

previous projects is that they are not necessarily recognised as nature-based solutions i.e. natural multifunctional solutions to long-term problems. Without an established definition or even recognition of nature-based solutions locally, consistent and meaningful governance structures have been difficult to maintain.

One of the most high profile nature-based solution projects in Glasgow was the Athlete's Village integrated water management system. This was designed at a time when the concept of nature-based solutions was even less in the mainstream than they are now. Although such projects have been successful in terms of multi-functionality; co-benefits have not necessarily been planned, recorded or analysed. Going forward, it will be key to capture these factors to ensure that governance structures are suitable in relation to local conditions, especially as the knowledge base develops and expands. The project team have already worked with academic partners and local partners to develop some relevant city-wide indicators to help with this (see section 3 for more information).

The Connecting Nature team plan to take a shared responsibility approach when it comes to governance. We are working with formal and informal partners to ensure there is coordination and that suitable structures can be set up at the local level. Given the long-term policy-based approach of Glasgow's exemplar, nature-based solution projects are still emerging and so governance structures have not yet been fully developed to an advanced or operational stage. The aim would be for community-led projects to put in place their own governance structures to be monitored by those community groups, social enterprises or other actors responsible. This could be the case for either individual nature-based solutions such as a community garden or those organised within a strategy or network (biodiversity corridor, rain gardens, food growing etc.). However, larger scale nature-based solutions will still require some formal institutional governance and facilitation from the Council and our strategic partners. This will depend on who the major stakeholders are and will be closely linked to the financial and entrepreneurship models as well as the coproduction strategies employed.

4.6 Team Capacity and Opportunities

One of the main barriers for implementing nature-based solutions in Glasgow is a lack of understanding of what the concept actually means. Many terms have been used in recent decades such as 'green infrastructure' or 'green development' and because nature-based solutions are broader, less engineered and include capturing the wider benefits, stakeholders are often not aware or get confused. To add to this, there is a challenging culture at Glasgow City Council and other public or third sector institutions that could be involved with the delivery of nature-based solutions across the city. Following a decade of cuts to public expenditure and particularly the disproportionate cuts to planning departments, a lack of resources has partly led to a negative culture and an unwillingness to learn amongst some actors. It's also one reason why it is challenging to overcome silo working practices.

However, this has provided us with an opportunity to increase awareness to a much wider audience by producing a detailed communication plan. This plan is currently being prepared and is not yet operational but so far it has identified a large number of audiences both inside and outside Glasgow City Council and both official and more informal audiences. The plan is currently setting out a schedule of engagement activities that will aim to be innovative and tailored to specific audiences. For example, the plan already highlights opportunities to engage with various practitioners across the Council by using existing professional development programmes to present at a series of lunchtime learning events. The aim of this would be to increase the knowledge base and to ensure we are not missing opportunities to encourage the upscaling of nature-based solutions.

We also have the opportunity to better utilise our existing democratic urban governance systems by presenting our project objectives to relevant Council public committees. This allows us to formally and more directly communicate the benefits of the Connecting Nature project and the merits of nature-based solutions to a high level, particularly to those who have greater democratic power at the local level. This is especially important now given the climate emergency declared at both city and national level. We have scheduled to take the open space strategy, a Connecting Nature project positioning paper and the project communication plan to public committee before the end of 2019. Overall, we have already started to see a slight change in culture with regards to working practices and the culture at Glasgow City Council as a result of the Connecting Nature team now being fully staffed because as more people become aware of our objectives, the more curious they seem to become. Whilst this remains anecdotal at the moment, the communication plan will record and monitor cultural changes going forward by recording and analysing feedback from each event/activity.

So far, we have learned that communicating the right message to the right audiences is key to getting the buy in we need from the various stakeholders involved with different types and scales of nature-based solution projects across the city. Governance structures at a more local level need to be introduced as user-friendly and targeted to ensure that projects become sustainable. This is particularly important as existing local government governance structures can be difficult to navigate and are not always useful in the longer term. Especially during a period when Development and Regeneration Services are effectively leaderless as an ongoing dispute continues between the Executive and senior management teams.

Resourcing is also key. At this stage of nature-based solutions in the city of Glasgow, we need to ensure the Connecting Nature team and the wider open space strategy team continues to be fully staffed to maintain momentum and develop our expertise. This includes our own team members who have much experience in relation to urban planning, communication, collaborative working and skills within technology but may lack certain technical skills or broader expertise in the delivery and upscaling of nature-based solutions. This is partly due to the emerging nature of the concept and so continuous professional development is key as we share and learn from other nature-based solution experiences in other cities. Team members have already attended nature-based solution training events to start to overcome these challenges and training opportunities will be extended to the wider development plan team as well.

4.7 Next Steps

The project team have now started planning a number of stakeholder opportunity mapping workshops as part of our partnership with Greenspace Scotland. These will be within three identified geographical areas in Glasgow - Pollok, Easterhouse and Glasgow North. These areas were chosen because of the level of activity already taking place and partly because of the sociodemographic groups who live there. The main purpose of the workshops is to find out which actors are operating where and to locate any relevant potential or existing nature-based solution projects where we could jointly add value. In addition, we expect the workshops to encourage co-creational methods and to also initiate local and community-led entrepreneurship behaviours. The workshops will help raise awareness of the Connecting Nature project locally and also act as a forum for participants to find out more about each other too, potentially fostering new governance models. At this point, we expect participants to be organisations rather than individuals but if the format works, we plan to use it at again at different community engagement events.

The Connecting Nature Glasgow Team will also continue to work on delivering the communications plan as well continuing to upskill ourselves by attending relevant training events, particularly in the

areas of technical solutions, developing business models and fostering better entrepreneurship at the local level.

Further to this, with a recognition that there are issues at senior management level in Development and Regeneration Services, the Executive has agreed to use our department as a pilot in the Council for succession planning to ensure we can upskill and retain valued members of staff at all levels.

5. Co-Production

5.1 The Objectives of Co-Production

Glasgow City Council is required by the Scottish Government to have an Open Space Strategy (OSS). The new Planning Bill, that requires Royal Assent in July 2019, now makes this a statutory duty. The Council is one of the biggest land owners and managers in the City. However the management of this land; the development of policy and the operational action are divided across a number of services within the Council. Open Space can be found within the assets that most of the Council services manage such as Public Parks; Sports Pitches; cycle routes; public realm; amenity land around council offices and in School grounds. Within the wider public sector large areas of publicly accessible open space are manged by Universities; the Health Board and the housing associations. The development of an OSS provides us with an opportunity to embed nature-based solutions and sustainable open space management as a key asset management tool for the public managed land and to provide a direction of travel for the land in private ownership.

We view co-production as a method to engage with our various stakeholders at multiple levels of our process to develop and implement the OSS. By looking at open space holistically and co-producing the strategy with multiple services and key partners, such as other departments within the City Council, the Glasgow and Clyde Valley Green Network, Greenspace Scotland, Central Scotland Green Network, as well as local communities and the wider public we will be able to start to break down internal silos and organisational barriers, connect nature-based solutions to multiple city agendas, generate new knowledge that can feed into both local and national agendas and ensure that we involve diverse actors while still addressing the needs of our citizens across the city.

5.2 Co-Production around the Development of the Open Space Strategy

The original draft of the Open Space Strategy predates the emergence of the Connecting Nature Project. We recognised that we needed to find a different way to engage with the wider community to try to get their views on Open Space within the City. So along with standard consultation methods such as online questionnaires and public exhibitions we also created a series of postcards with key questions on them. These postcards were distributed through the Cities Library and Council Office network and were also available on line. Whilst the response was limited we were hopeful that they spread the word and raised awareness of the development of the strategy.

5.3 Assessing the existing Open Spaces city wide and developing Open Space Standards

With advice from Greenspace Scotland, we are developing a new set of Open Space Standards for the City Development Plan (CDP), which in conjunction with the OSS will ensure that open space is an integral part of how we improve and develop better places.

These standards will be fine-tuned through co-production. As we test the standards by using them to assess the quality of the existing open spaces we are taking the opportunity through our work on emerging projects to engage with a diverse range of people to check if the standards are fit for purpose.

Groups of Council Officers are using an app on an iPad which has been designed around the standards to use them to assess existing open spaces. The standards were designed to provide developers a standard to meet for the delivery of new open space. We wanted to test whether they would work on existing open spaces. The Connecting Nature Team have worked with colleagues from our Parks Service (Landscape Architects; Ecologists and Community Engagement Officers) and Planners from our own Service to assessing existing open spaces and then reviewing the results to see if there are any obvious anomalies. All have brought different skill sets and understanding of what quality open space is. Results so far suggest that refinement is required for certain existing types of open space as some

spaces that we would expect to come out as high quality are failing the assessment. By working collaboratively we can start to understand why they are failing and how we can refine the standards if necessary.

As part of the Pollok 80/20 project and the Pollok Park Transformation project we have the opportunity to work with the local communities to see how they would use the standards as an assessment tool. We'll be comparing this with the use of the PlaceStandard that we will also get community activists to use. This will allow us to coproduce a useful toolkit for communities to engage with the assessment of the quality of their open spaces.

5.4 Pollok 80/20; Pollok Park Transformation Project – Partnership Plan and the Southside Communities

Pollok Park is one of the largest open spaces in the city. It's formed from the remains of a much larger estate that was gifted to the city early last century. It contains a number of listed buildings; is a conservation area and has a number of natural environment designations that impact on the management of the area. Pollok Park has multiple activities that have operated for a very long time within its boundaries and that leads to a mixture of activities that sometimes conflict with each other. The park also sits between two very diverse communities within the south of the city, Pollok one of the earliest public housing estates in the city and Shawlands / Pollokshields which is part of the more affluent Southside of the city. Development in the eighties of additional motorway networks has made access to and a feeling of connection with the park difficult for those that live in the Pollok housing estate.

Prior to the launch of the colloborative work on transforming Pollok Park a number of community led activities occurred over the last few years. Within East Pollokshields funding was gained from the Scottish Government to run a Community Charrette. A charrette is an intensive planning session where citizens, designers and others collaborate on a vision for development. It provides a forum for ideas and offers the unique advantage of giving immediate feedback to the designers. More importantly, it allows everyone who participates to be a mutual author of the plan. Unfortunately, at the time that the community won the funding they were not defined as a planning priority for the Council and we had no resources to support the further development of their ideas. The Connecting Nature Team, alongside colleagues from Greenspace Scotland, offered support. However it quickly became clear that the stage that the community had reached was around identifying funding for site specific activities rather than looking at the spatial planning of wider area and that it would be premature to add additional Nature based solutions or to try to link their actions into the wider spatial planning area at that point in time.

Meanwhile in the Pollok Housing Estate funding had also been gained to start to talk about the Estate and what type of place its residents wanted it to be in 2037 when it would celebrate its 100th birthday. Various activities have occurred within the area, but with limited resources it has been difficult for the community or the Council to pull these together in a cohesive manner.

As part of the project work around the redevelopment of the Burrell Museum in Pollok Park the team used co-production techniques to develop Pollok as a place document and to identify that a key collaboration tool going forward would be the development of a Partnership Plan for the park. Using the PlaceStandard (www.placestandard.scot) and conversations with various communities of interest one of the recommendations from the development of Pollok as a place was that a Partnership Plan should be developed. Work on the operational model for the Park by a private consultant also recommended this. The next stages are for the team to co-produce with colleagues a project and communication plan for the development of a Partnership Plan that links together the aspirations of

the two communities on both sides of Pollok Park and the transformation work within the park. This work that will allow open and inclusive collaboration with all those that have an interest in the park and its surrounding area. It won't replace existing or plans and strategies but will instead show how the different communities of interest can work in partnership and collaborate to create a high quality, resilient Southside of the City. In tangent with this The Connecting Nature Team will also be leading on the development of a Pollok Local Development Framework with a very clear focus on Nature Based Solutions. This will be developed in collaboration with Pollok 80/20.

5.5 Stalled Spaces

The stalled spaces project has been running for around ten years. We are at a transition point where we need to assess the success or otherwise of the project and to identify the way forward. We need to do this in collaboration with the community of interest. This includes those that have benefited from the initiative in the past; those who may benefit in the future; colleagues who have worked on the project and partners who have supported the project. We are currently undertaking a review. Co-production of the next iteration of the initiative will be really important if we want to ensure the long term sustainability of the initiative and also the spaces and places that it creates. Early review findings are already identifying that stalled space activities that happened to communities tended to not have long term sustainability or on going benefits for the community. Going forward we are aiming to take the new learning from Connecting Nature into the stalled Spaces initiative so that we can identify a wider range of opportunities. So as well as being growing spaces they may also be places where we carbon capture; generate energy; create nature based solutions social enterprise; climate adapt or just places to play and imagine.

5.6 Food Growing Strategy – Nature Based Solutions Business model Canvas

Neighbourhoods and Sustainability (NS) have been developing a food growing strategy as part of their efforts to address food poverty and the growing demand for the creation of new allotments. A demonstration garden was set up in the walled Garden at Bellahouston Park that brought together a number of different charities and educational establishments along with interested community actors to develop a community garden. The officers leading the food growing strategy were aware that there were social, environmental, health and economic benefits but were finding it difficult to articulate these in a way that they could use both for official papers and also to start different conversations with the community and funding bodies. In collaboration with Trinity College Dublin we introduced them to the NBS Business model Canvas. The canvas was co-produced by officers from both services and was then used for further discussions with a wider audience. Officers in NS are proposing to use it as a collaboration tool as they roll out community gardens as it allows for identification of benefits and possible funding routes.

5.7 Opportunity Mapping – a communication tool

The production of the Open Space GIS data base, with its information on quantity, quality and accessibility provides us with a firm foundation for asset management conversations with officers throughout the Council and also with key agencies; strategic partners and the Scottish Government. By gaining a clear understanding of others' agendas we can start to identify the parameters and then provide opportunity maps that could lead to delivery. For instance if we layer the vacant & derelict land register over the open space map we can start to identify if there are any possible land swaps; amalgamations or ways to improve the developability of certain sites. Nature based solutions on failing open space could not only improve the quality of the open space but also unlock the development potential of the vacant & derelict land. The opportunity mapping will allow new co-

production to generate new knowledge that will help the city address some of its climate adaption challenges going forward.

5.8 Using Nature Based Solutions to unlock Vacant & Derelict Land

Within Glasgow a high percentage of our population live within 500m of vacant & derelict land. This has a negative impact on their health and wellbeing. Nature based solutions could be used to unlock the potential of this land whether it is for reimaging as open space or making the land development ready. Discussions are starting with a number of actors about how the vacant & derelict land can be used to make our communities more climate resilient. Activities could include now ways of using stalled spaces to capture carbon; generate energy; grow food or be developed in an innovative way.

5.9 Park Power

Greenspace Scotland have an innovation project to develop a digital platform to identify the most economically viable energy generation schemes in order to raise extra income to help resource park and greenspace management. The Connecting Nature team aim to work with Greenspace Scotland and our local partners in the H2020 Ruggedised the Scottish Government to ensure that our Open spaces are an integral part of our local heat and energy network. We are aiming to look at Bellahouston and the northern part of Pollok Park as a start point for our own developments of park power as a nature based solution. We will also work closely with colleagues in British Geological Survey to take their learning from the Geoenergy Observatory in Glasgow

5.10 Climate Emergency
The council declared a climate emergency in May 2019. The Connecting Nature team are working with colleagues in the Council, Climate Ready Clyde , MGSDP , City Region and City Deal to identify collaborative work where we can add value by incorporating Nature based solutions. This is also links into work on the review of the Cleaner air for Scotland strategy where we have led the Placemaking sub group for the review and recommended that along with behavioural change and upskilling the use of Nature based solutions were a key component to improvement in air quality linked to place.

5.11 Next Steps and key objectives: a multi-layered approach to co-producing the OSS (implementation)
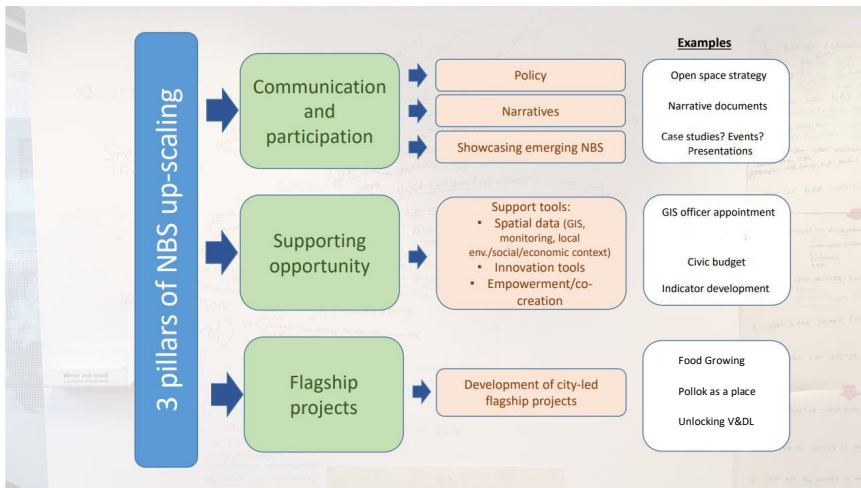
In particular, we encourage conversations around nature-based solutions through a multi-layered approach that involves different types of actors (looking at the quintuple helix model):

- **Strategic – development of the OSS:** We develop the OSS together with our partners and also aim to engage the wider public through consultation processes. We also establish collaborations with other city departments to link the OSS to other strategic agendas.
- **Tactical – link the OSS to on-going developments and opportunities in Glasgow:** We aim to work together with partners and local communities to identify open spaces and needs and opportunities for nature-based solutions. We particularly employ citizen science approaches to develop an interactive map that helps to inform about as well as keep track about open space development.
- **Operational – engagement of local communities in the development of nature-based solutions in specific areas:** We will work with community groups in different specific areas in Glasgow (e.g. the Pollok area) to find out what their needs and aims are regarding open space and nature-based solutions and encourage multi-functional nature-based solutions as a mechanisms to implement the OSS.
- **Reflexive – monitoring and maintaining open space:** To assess and maintain the quality of open space in the city we will conduct site visits and involve the public to help assess the space.

5.12 Actors involved

It is important that Glasgow identifies early on stakeholders in each of the Quintuple Helix categories and how they might/will engage with us, and to which ends.

It is not just the knowledge these audiences could provide expertise in, but also how and when we engage with these audiences we build their knowledge; build confidence among some of the more

vulnerable stakeholders (e.g. local communities who may have a limited understanding of NBS until it is properly explained); involving these audiences in co-production has a knock on effect then in terms of implementation, governance, scaling out, influencing policy etc.

Co-production objective and type of process	Who will be involved	Why
Strategic: development of the OSS	Communities of interest	Knowledge generation
	Other city department (e.g. NS; Education; Glasgow life; Chief Execs)	Link to other strategic agendas in the city and collaboration
	Public	Consultation and input (e.g. postcards, online questionnaires, public exhibitions)
Tactical: link the OSS to on-going developments and opportunities in Glasgow	Partners - Scottish Government; GCVGN;CSGN; SEPA; SNH; BGS; Greenspace Scotland; CRC; GHA & other housing Associations; Glasgow City Region; City Deal;	Link into development Plan action Programme and delivery on the City Council vision and aims.
	Public (local communities)	Identify open spaces and needs and opportunities for nature-based solutions (e.g. citizen science approaches to develop an interactive map)
Operational: engagement of local communities in the development of nature-based solutions in specific areas	Local communities in different specific areas in Glasgow (e.g. the Pollok area)	Find out what their needs and aims are regarding open space and nature-based solutions and encourage multi-functional nature-based solutions
Reflexive: monitoring and maintaining open space	Groups of Council Officers from different departments?	Use standards to assess existing open spaces (using app on an ipad), and to test and refine standards
	Communities	To help assess open space and get their perspectives and needs, and to test and refine standards

The key audiences are defined below:

Design principles	Quality criteria	

Process principles			Who
Inclusivity	Bringing together multiple types of knowledge at equal basis	- Process is inclusive to diverse actors and knowledges - Process is attentive to different actors' needs in terms of their time and availability profiles - Process builds on an open and safe setting that nurtures trust and learning	GCC Services Key Agencies Scottish Government
Openness	Process is open to new knowledge, information and actors throughout Process openly shares generated knowledge	- Process is open to new types of knowledge and actors throughout - Process is reflexive and adaptive to integrate new types of knowledge and actors - Process results are openly shared and disseminated	Further education sector in Glasgow Connecting Nature Partners Greenspace Scotland Central Scotland Green Network
Legitimacy	Process includes legitimate and trustworthy knowledge	- Reliability of sources entering the process and generated results are checked - Process is facilitated in a just way to give equal voice to diverse actors and knowledges	City Development Plan Open Space Strategy Planning Bill NPPF / SPP UNSDGs
Output principles			
Actionable knowledge for policy and planning	Knowledge co-produced is immediately relevant and translated to planning and policy	- Knowledge outputs shape new practices of planning (e.g. engaging citizens/stakeholders) - Knowledge outputs (are actively) link(ed) to strategic goals, agendas and processes - Knowledge enriches (new) solutions and strategies, agendas and processes	City Development Plan City Strategic Plan Property & Land Strategy Community Plan
Usable knowledge and	Knowledge co-produced is valuable to, and	- Knowledge outputs are contextually relevant and value-	Citizen Science Community Empowerment

empowerment	'owned' by multiple participating actors Knowledge co-produced sparks new role definitions and actions	tied to inform real-life problems and solutions - Knowledge outputs trigger new and deeper relationships and a shared (re-)definition of roles and responsibilities - Knowledge outputs become institutionalised and capitalised in practices and routines of societal actors	Key Agencies Scottish Government Scottish Improvement Service Place Standard
Extending institutions for synergies	Knowledge co-produced connects to multiple planning strategies/agendas	- Knowledge outputs are mediated to and aligned with other city strategies, programmes and goals - Knowledge outputs adapt or stretch the institutional space given for co-production to enable cross-cutting collaboration, learning and integration	GCC Services GCC Family City Region Scottish Government

The Open Space Strategy has been developed to service a number of different audiences. The initial strategy and opportunity mapping is probably more useful to Council Services; partners agencies and Central Government. Through Connecting Nature we are hoping to develop the mapping and data offer so that it becomes useful to other audiences. This may mean that we have to look at the development of story mapping; citizen science or web access to the information. The table below sets out some of the early thoughts that need to be developed further.

Who	Why	How
GCC – Neighbourhoods & Sustainability	Operational managers of Council managed Open Space Sustainability responsible for climate reporting and operational energy efficiency delivery	Providing data & policy support to allow for better asset management decisions to be made Opportunity mapping and policy development. Piloting of innovation projects to identify ways to make our open spaces cost and carbon neutral
GCC – Development & Regeneration	Spatial Planning / Development Planning	Providing data & policy support to allow for better asset

	Corporate property management	management decisions to be made
	Development management	Opportunity mapping and policy development.
	Major infrastructure projects	Piloting of innovation projects to identify ways to unlock our Vacant & derelict using nature based solutions
GCC – Corporate, Education, Social Work etc	Corporate asset management Lifelong learning	Providing data & policy support to allow for better asset management decisions to be made
	Community Planning	
	Community Empowerment	Links into participatory budgeting
	Climate Emergency	Natural Capital Accounting
Further Education Community	Collaborative research Innovation	The city as a living lab
	Providing data & policy support to allow for better asset management decisions to be made	Driving direction of innovative research for local academic community linking to NBS
	Validating grey research	
Key Agencies & Scottish Government	UNSDG's	Ensuring we deliver on the key performance measures set by Scottish Government
	National performance framework	
Citizens	Climate adaption	Co-production and co-ownership of decisions about retaining, reimaging, reuse and replacing Open space.
	Placemaking	
	Resilience	
	Health & Wellbeing	Ensuring multiple benefits using Nature based solutions
	Energy poverty	
	Food islands	
Economic Systems	Creating Business ready spaces and places that are fit for function	Nature based solutions business model canvas
	Business opportunities	Understanding business requirements for spaces and how to use Nature based solutions to unlock
	Development of Nature based solution businesses	

	Community enterprise	development opportunity of Vacant & derelict land

5.13 Co-production steps and activities

In the future, we will further plan and outline the co-production steps and activities for each of these objectives.

The existing areas that we are currently working collaboratively in are listed below:

a. Pollok area: local development framework document

In the coming months we will organise a number of different engagement events tailored to different audiences to redevelop the whole Pollok area (as well as in two other areas).

Firstly, we will organise a series of workshops with our formal partners Green Space Scotland that will include relevant actors we are aware of in the area. The aim is to map out which projects are developed in the area and which we could add value to, and to work together with community groups and members of the public to find out what needs and ideas they have for developing and improving the Pollock area. The ultimate aim is to encourage multi-functional nature-based solutions within open spaces in Pollock that then relate to our OSS.

This will be progressed further into the production of a local development framework document – what specific shape this document will take will build on and thus be co-produced through other brainstorming sessions with practitioners and Glasgow City Council (e.g. document, map).

The work will be supported by a community engagement officer. In the frame of the Pollok 80/20 project we had funding for such community engagement officer to support communities and get their voice heard. That officer is now full time employed by sisterhood organization on neighbourhood and sustainability, so she is still a link to the communities and offers opportunities to think about community engagement.

b. OSS and open space map

We will start to collect data for our OSS map, which involves various levels of co-production. In order to get baseline data across the city, we plan to work with people from other departments but also external organisations. This ties into the ongoing work on monitoring and indicators led by partners within Connecting Nature. There are a number of possible indicators that we think others are currently collecting data on for a different purpose. However, we think they may be useful data sources for us to assess the proposed outcomes we have determined for Open Space against.

To generate an overarching view on open spaces we will involve communities – both city-wide and site-specific:

- For city-wide engagement we will have comments back from the public on what we are proposing – as part of wider development planning, and also to include changes

- For site-specific actions we want to involve communities to define what/how they want to put forward, e.g. there are ideas within the OSS that say that we want to develop open space that the communities think is functional – so we want to explore what communities think is a functional open space and explore how nature-based solutions can help creating this multifunctional open space.

This process is also to make use of an opportunity: The Scottish government is making open space as statutory deliverable, but also require digital planning. We want to start make that interaction at city scale more open and transparent, to capture ideas people have about the spaces and their value – we can be ahead of the curve on that, and can influence how Scotland starts to collect information about public and how they want to embed nature-based solutions in their spaces.

c. **Interactive open space map and citizen science**

We have started to create an interactive map that we will gradually build and that will be useful for colleagues in the City Council but also to communities, e.g. in the Pollock area. Then we can start talking to communities about what data would be useful for them.

We also want to use it to capture their suggestions and have that ongoing dialogue through citizen science approaches via the interactive map:

- We identify opportunities for open spaces and nature-based solutions that people can recognise and utilise. For example, we can show opportunities for raingardens and people can then see that in their street is one such opportunity.
- We can get the data flow back about what is happening in the city. For example, when people make a raingarden on their own they can click on the map and tell us about it.
- We can also gather information about where people want something and what kind of ideas they have. We can then see what we can support in practice. There will be a need to identify criteria and principles for transparent and legitimate selection of ideas.

d. **Ongoing maintenance and monitoring of open space**

We plan site visits with the public to ensure quality assessment of open space in the city. This is really something new and we will plan out how to move this forward.

5.14 Co-production design principles

For each of our activities we will reflect on the co-production design principles. For our overarching approach to co-production, we currently approach the design principles as follows:

- *Inclusivity:* We involve our strategic partners, work across city departments and with local communities. We find it important to involve actors through a multi-layered approach. We find this important to get buy-in and collect input (e.g. to the OSS), but also to translate our knowledge to local contexts and needs in specific communities (e.g. Pollok area). We achieve this by mapping specific actors that need to be involved in different steps.
- *Openness:* We try to be as open as possible with the information we put out there and always aim for open and city-wide communication. This also requires being attentive to

language, e.g. the language we use to describe degraded open space when communicating to the public or the colours we use to show when open space is not in good condition. We need to have open conversations. The council was previously to risk-averse before, which also relates to failures in the past when we were not honest about the functions of open space and the design did not match the needs.

- *Legitimacy:* We try to explain to people the difference between protection of open space and green abandoned space – for legitimacy it is important to communicate well as well as to get a good data base for making decisions. This is why we seek to involve experts and generate as much data about our open spaces.
- *Actionable knowledge:* The OSS is a key output goal for generating actionable knowledge that is directly related to policymaking and planning. However, we generate multiple types of actionable knowledge, next to strategic approaches also by generating a profound knowledge base for implementation (e.g. working out parameters for putting up trees) and by involving local communities for concrete multi-functional nature-based solutions that can be developed in specific areas.
- *Usable knowledge:* By involving local communities and business we aim to enhance their understanding about how they contribute to the open space development themselves, e.g. through the Business Canvas Tool.
- *Extending institutions:* We actively involve other city departments and a wide range of actors to link the OSS to other strategic documents in Glasgow. For this, the engagement of colleagues from within the city government has been critical to underpin an ongoing peer-education process with planners, consultants, architects etc., to influence how people within the government look for opportunities. This is achieved via regular lunchtime slots that include interactive workshops during which the strategy could be presented. This also opened up discussion about where to add the NBS, to reach uninterested colleagues and create a shared narrative. The strategy used to generate actionable knowledge resembles a sort of 'guerrilla'-technique to place posters in a space where people often stand/walk (e.g. near coffee machines

5.15 Co-production tools and methods

Further steps are required in Glasgow to describe the co-production tools and methods we have used to date and to capture the tools and methods that we plan to use.

Tools and methods are highly diverse, and depend on the goals of the co-production process, and a specific co-production activity or step (for example the framing of a problem), as well as the specific types of actors involved. For example, visioning exercises serve to generate inspiring future images and ideas; they are particularly useful at the beginning of a longer co-production journey to align diverse actors and to create long-term, systemic and normative aspirations that guide the development of concrete innovative solutions like NBS.

A number of different methods and tools are described below and we will use these to help us categorise our actions:

- *Exploring local dynamics to deepening understanding of the context and challenge:* Rather than starting from pre-defined problem definitions and solution approaches, tools and

methods to examine local dynamics suggest a stepping back to first systematically question assumptions, problem perceptions and dominant solutions.
- *Mapping actor's networks to explore the actor landscape and identify collaborators:* Mapping actors and networks helps to become more aware of the actor landscape in the city and concerning a specific challenge or area.
- *Visioning and strategizing for sustainable futures and solution pathways:* Visioning and strategizing tools and methods focus on the exchange of perspectives on possible futures and the creation of a shared future perspective.
- *Ideation and prototyping solutions:* Tools and methods for ideating and prototyping serve to identify concrete and innovative solutions like concrete NBS interventions in an open-ended way.
- *Building team spirit and collaboration:* Successful co-production rests on the built-up of team spirit and collaboration by diverse actors to pool their skills, knowledge and resources and engage in joint idea generation and implementation.
- *Mobilising actors and networks:* Co-production processes can gain more visibility, support and traction when they are actively reaching out to new actors to engage and inform about the generated knowledge.

Some examples of what we have done so far are listed below. This table will grow as the work on the Open Space strategy develops:

Method used	Objective (in relation to the objectives and activities/step above)	How was method used (what was the method about, with whom was it applied)	Results
Postcards	To engage people with the proposed OSS and get their feedback	The postcards were widely disseminated across Glasgow, and included a picture on the front, return address and stamps.	Citizens considered the key aims of the draft strategy and provided feedback. It raised awareness of the work we were doing.
Business Canvas Tool	To introduce a conversation about financing	The BMC was initially used with colleagues working on the Bellahouston model community garden. Then used for the whole Open space Strategy	Ideas for different ways of financing were generated. Conversations with communities of interest were identified.
Open Space Standards	To identify if the protected open Spaces are fit for function and to create a minimum standard for the provision of new open space	Initially used to assess quality of existing greenspaces over .3ha within certain typologies by Council officers.	Allowed an initial assessment of quality, quantity & accessibility but identified that some refinement is required to the methodology

PlaceStandard	To open up conversations about spaces and places to all.	Tested out with the communities of interest within Pollok park to try to engage them in the wider conversations about Pollok as a place	Led to the development of a green or Open Space lens for the PlaceStandard which we will now use with the communities working on Pollok 80/20

5.16 Lessons learned

As we move forward to the implementation of the OSS once it is adopted towards the end of the year (2019), there are a number of barriers and opportunities that we will require to address. Some of these will be covered by the development of a communications plan but key actions for us to think about with regard to co-production include:

1. Engaging and reaching out to diverse actors
   Challenges: How do we engage with a wide cross-section of the city, including the most disadvantaged hard to reach groups?

   How do we manage expectation? E.g., from previous experience citizens might have the feeling that "this is just another project by the Council, nothing will happen".

   Expectation Management

   - It is important to be honest – aspirational but realistic
   - Engage with interested members from communities
   - Government is facilitator: guide, try to avoid expectations in this way
     - Support: might not always be able to help, could provide evidence, link to NBS thinking, coordinate diverse activities and ideas, guidance and feed in knowledge
     - Result from support: more informed public for evidence-based business case
     - Some spaces might also be owned by council, there might then be budget for public realm development
     - Need to separate who owns the land and who takes responsibility

2. Building on political momentum and support
   Challenge: How do we get buy in from Politicians and Senior Management?

   Political Buy in

   - Getting across the wider message to politicians / colleagues about the benefits that could come via the Open Space Strategy in an easily understood way

- Communicating / demonstrating how nature based solutions can contribute to wider objectives of the council including health and wellbeing and climate adaption

Partner Buy in

- Getting buy in of key people within Council; key agencies; Scottish Government and strategic partners who can champion Nature based solutions in a way that embeds them in policies that will support the transformation of the city.

3. Collaborating with colleagues – internal co-production
Challenge: How do you engage with Colleagues to show that the work of Connecting Nature and the delivery of the Open space strategy can add value to their individual work areas?

Internal Co-creation

- Identify opportunities for internal co-creation in relation to major masterplanning exercises such as the strategic development frameworks, City Deal and Development Management.

Front loading Value

- Identify ways to identify the value of front loading Nature based solutions into major strategic developments such as the work around the River Clyde.

4. Retrofitting
Challenge: How do we develop opportunities to retrofit Nature based solutions to exiting spaces and buildings, particularly within our protected Open spaces, that will make them more climate resilient?

- Develop / Identify a range of nature based solutions that can either be retrofitted where the opportunity arises into existing spaces or onto existing buildings.

5. Opportunity Mapping
Challenge: How do we develop the opportunity mapping so that as new knowledge becomes available opportunities can be identified?

- Develop opportunity mapping, tied to policy development that shows where new knowledge around nature based solutions can be co-produced and applied.
- Identify new knowledge around the definition of open space in particular the new emerging guidance around the Statutory status of Open Space Strategies in Scotland
- Work with Scottish government to support the development of guidance to support the new statutory duties within the 2019 Scottish Planning Bill.
- Identify, not the usual suspect Open Spaces, such as roofs and walls of structures, where Nature based solutions could be applied to create more multi-functional open space.

- Identify the gaps in knowledge around quality and accessibility of open space particularly in relation to the grey and blue spaces.
- Identify how to link opportunity mapping to citizen science

6. Technical

Challenge: How do we harness the power of innovation and creativity to create tools and opportunities that support co-production and collaboration across all communities and different platforms?

How we support and encourage idea generation?

How do we overcome technical barriers created by outdated IT?

- Link into the work of the City Innovation Centre and Corporate Services to help support the development of innovative solutions using existing technical capacity
- Support the role out of the it upgrade in late 2019 and try to ensure that it is fit for function
- Work with and support Scottish Government with the role out of the Digital Planning Strategy

6. Financing

6.1 Introduction

A co-ordinated approach to delivering open space can deliver significant financial benefits to the public sector. A City of Edinburgh Council study in 2015 estimated that for £1 invested in Edinburgh's open spaces, around £12 of social, economic and environmental benefits were delivered. More recently, Fields in Trust's 2018 Report, Revaluing Parks and Green Spaces identified that the well-being value associated with frequent use of local parks and open spaces is worth £34.2 billion per year to the UK adult population.

In Glasgow the budget for the management and maintenance of the publicly owned Open space sites with our Neighbourhoods and Sustainability team who deal with the operational day to day managements of the spaces. Glasgow Life has a budget to manage demand-led sports facilities and Development & Regeneration Services delivers new Open Spaces, both public and private via planning policy. There is an acknowledgement that whilst policy seeks to provide equity of access for all to high quality open space, budget constraints; citizen knowledge and political decisions can all lead to an inequality of access and pressure on budgets.

There is an awareness that applying a nature based solutions lens to the current budgets could help to offset the budge pressure, may help us to sweat the assets and even make some of our public open spaces cost neutral or cost positive. With the help of Connecting Nature partners at Trinity College Dublin Business School and University of East London we have used a NBS Business model canvas to assess the current state of play. See the diagram on the following page.

Business Model Canvas

Key Activities:

Maintaining the space, finding and sustaining investment, mapping, connectivity, sustainability appraisals, engaging/communicating with communities, identifying priorities/needs, capacity building, data, identifying opportunities, bottom-up and top-down developments, access for all, planting, climate modelling, air quality research, policy and public awareness, coordinating resources and skills, flood risk assessment and management, research and innovation

Key Resources

Space, expertise, technical skills, revenue, communication with communities, staff, peer support, partnerships, connected network of organisations, research and funding, business models, infrastructure, coordinated vision.

Economic: skills, development, employability, poverty alleviation, addresses flooding, futureproofing, makes city more attractive, tourism, increase property prices, desirability, looks more attractive, placemaking

Value proposition

Social: brings people together, community cohesion, reduced social isolation, improves health and wellbeing, open space no matter what, sport and recreation

Environmental: flood alleviation, reduces heat island, air quality, improved biodiversity, captured pollutants, power parks, habitat networks, carbon capture, climate action

Indirect: recycling, biomass, education, cost – maintenance, health and safety, water environment, harming landscape, impact of events, cost from growth, degrading quality

Key Partners

NHS, Health Scotland, Community Health Scotland, PALS, Glasgow Life, MGSDP, 'Friends of' groups, community councils, SenScot, TCV, Forestry Commission, SEPA, SusTrans, Community Energy Scotland, Energy suppliers, community planning partnerships, Clyde Gateway, events promoters, SNH, Zero Waste Scotland, Glasgow Community Food Network, housing associations, education providers

Key Beneficiaries

Entire city, insurance companies, politicians, NHS, charities, citizens, sports participants, under 5's, Council budget, businesses, Visit Scotland, entrepreneurs, caterers, social enterprise, food growers, big and small business, wildlife.

Governance

Overall Council governance: help to achieve goals, mixed model, community input and ownership, partnerships and participation, consultative, public access and transparency, social enterprise, council facilitation and guidance

Cost Structure

Fixed: maintaining spaces, staff, partners, expertise, external funders, equipment

Variable: environmental costs, experts, public programmes, cost of production

Cost Reduction

Prioritising, efficiency, bespoke planning, innovation, technology – robotics, programmes, partnerships, energy production, events, employability schemes, asset transfer, managing portfolio, participation, land swaps

Capturing Value

Tourism, visitors, events, green tech, land hire, new facilities, cost-cycling, food and bev, tours, growth, advertising, property values, increased population, increased rates, health benefits, greed medicine, facility for schools/education, litter, community pride, imaginative partnerships, crowd funding, taxation, increased property value, R&D, increase biodiversity, data capture, carbon capture, education, training, volunteering and skills development, increased business activity

6.2 Next Steps

Further analysis is needed of the outputs of the business model canvas to identify funding opportunities that could be investigated. We also need to look at how we can use the opportunity mapping to help inform responses to community asset transfer requests. The majority of these are currently coming from our more affluent communities and are being viewed as a methodology to resist development.

We need to understand better how we can use nature based solutions to unlock vacant & derelict land in both the long and short term and how we explain to communities the difference between protected open space and vacant & derelict land that is temporarily operating as public space.
We need to investigate further the areas where we can capture value from open spaces and investigate how that opens up funding opportunities.

The process of supporting Nature Based Enterprise is envisaged as a series of 4 steps as shown in the figure below:
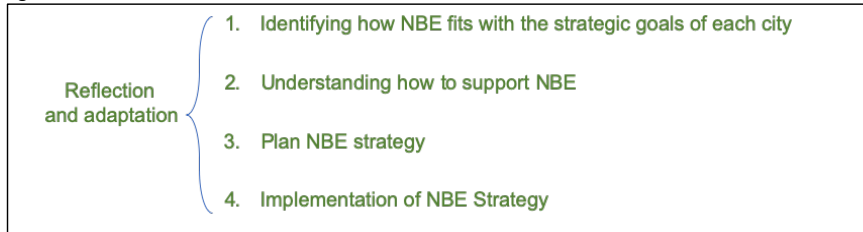
We need to also explore the following:

Step 1: Identifying how NBE fits with the Glasgow Strategic goals

- What are the priorities for economic development in Glasgow? E.g. priority sectors for development, priority geographical areas for economic development, and other economic priorities?
- How can the planned NBS contribute to these economic development priorities?
- For each NBS exemplar please consider, how could NBEs contribute to the planning, delivery, maintenance and sustainability of these solutions?
- What are the challenges and enablers from a city perspective in involving NBEs in the implementation of NBS?

Step 2: Explore opportunities for innovation in financing, governance and business models

- What sources of financing have you identified to cover the upfront capital expenditure costs of future NBS?
- Have you identified any opportunities for **new** sources of financing of capital expenditure costs?
- Have you identified any opportunities for **new** sources of financing of recurring operational costs as part of a sustainable business model?
- Have you identified and changes in governance models which you would like to explore in future NBS e.g. new organizational structures/stakeholders who could be involved in the management of future NBS ?

Step 3: Planning the financing and business model of Connecting Nature NBS exemplars

- Glasgow has followed a business model approach to planning for the financing and sustainability of the Open Space Strategy, which is the Nature based solution exemplar to be implemented in the Connecting Nature project. The financing plan identifies the upfront capital costs required and potential sources of financing. The business model planning approach asks cities to work out the costs required to sustain ongoing NBS activities, to consider how those costs can be reduced and to consider how to capture the value of NBS – both in terms of direct revenue generation and in terms of translating the wider value delivered by NBS (environmentally, socially and economically) into sources of ongoing operational revenue. The Business model canvas is illustrated in the financial section of this report.
- Each individual project or pilot that the Connecting Nature team will support will also require to follow a Nature based solutions business model canvas. So far the approach has also been tested on the Bellahouston demonstration garden and we aim to work with Colleagues within Neighbourhoods and sustainability to roll it out to the food growing strategy and other projects that the service may bring forward as part of the Parks and Greenspace vision (the operational plan for the publicly managed open spaces).

Step 4: Implementation of financing and business model plans for specific NBS exemplar

- Following the development of the business model canvas for the Open Space Strategy we need to translate the BMC and financing plan into an actionable implementation plan by identifying from a resource perspective, _**who**_ will be following up specifically on the plans for implementation of the financing and business models of NBS exemplars identified in Step 3 and to set out a timeframe and actions for implementation.

Implementation actions may involve follow up on:

- Preparation of applications/bids for funding/financing (where relevant).
- Engagement with investors and other stakeholders for alternative sources of financing.
- Continued engagement of all stakeholders in preparation for implementation of business model.

This action will be supported by specific quarterly calls that will be organized by Trinity College Dublin with the responsible person(s) on the Glasgow Connecting Nature team to follow up on progress on implementation of this planning.

We will aim to complete the following Financing & Business Model Implementation Plan:

Name of NBS exemplar	Action to be undertaken (arising from BMC & financing plan)	Responsible person	Timeframe for implementation

We will also reflect from a longer term perspective on how we will measure success in terms of financial, business and governance planning. We will also need to identify potential indicators for measuring success.

Step 5: Reflection: opportunities and barriers

Finally we will list and describe the main lessons learned and learning outcomes from the financing and business models of your NBS exemplar. We will think about the main opportunities and barriers. Some of this learning may well come from the reflexive monitoring process that we are following
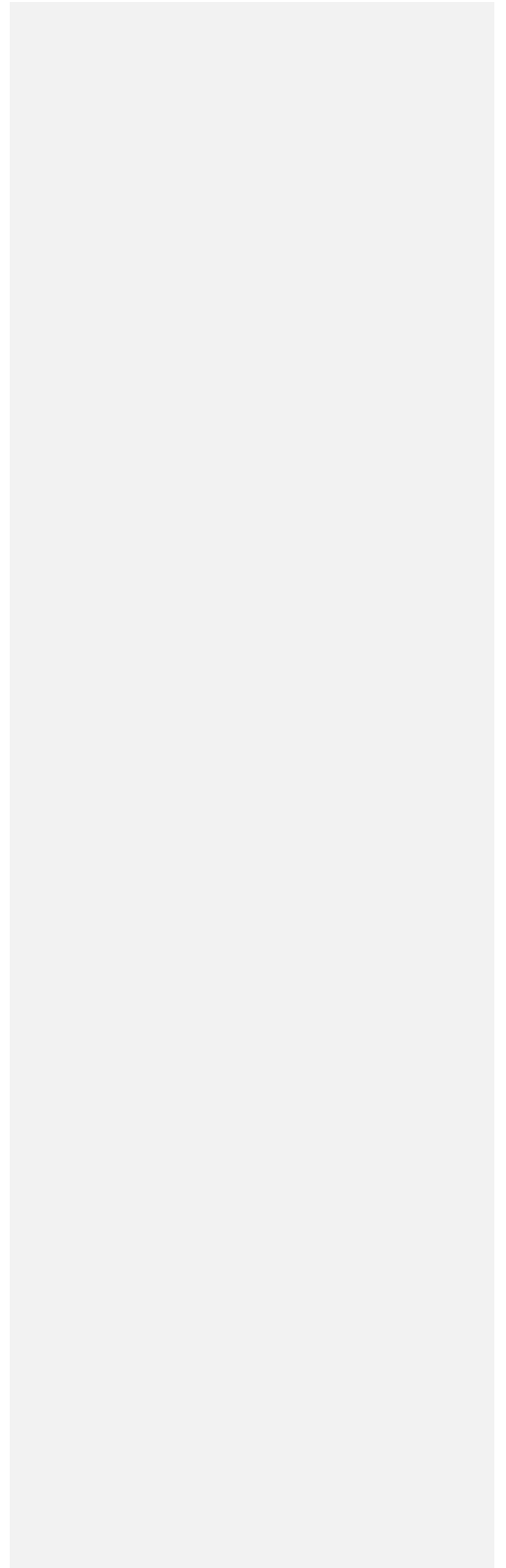
7. Entrepreneurship

7.1 Introduction

Supporting a culture of entrepreneurship and the emergence and growth of enterprises related to NBS is a core objective of Connecting Nature contributing to the positioning of Europe as a global leader in innovation and implementation of NBS. Research and practice related to nature-based entrepreneurship / enterprises (NBE) is an emerging field. Glasgow hasn't so far investigated how we can develop entrepreneurship in relation to the Open Space Strategy. Our next steps are identified below:

In this section, the objectives are for Glasgow are to:

- Consider how nature-based solutions as a whole and more specifically NBE could contribute to the strategic goals and economic development priorities of the city.
- Build an understanding of how NBEs could potentially help to plan, deliver and sustain the nature-based solutions planned in each city.
- Understand the specific challenges and enablers nature-based enterprises face regarding start-up and growth and identify how the current innovation ecosystem in each city could be leveraged to address these challenges and support the emergence and growth of nature-based enterprises.
- Put in place a specific action plan to support the emergence and growth of NBE.
- Capture learning throughout the implementation process and through reflexive monitoring to identify appropriate adaptation and change strategies.

Identifying entrepreneur opportunities follows the same step 1 described in the financing section above

Step 2: Understanding how to support NBE?

This step considers what support is required to stimulate the start-up and growth of NBEs in Glasgow.

- From an NBE perspective what are the challenges and enablers to start-up and growth of NBEs? Do NBEs face specific challenges or enablers?
- Who are the main actors in the **innovation ecosystem**[1] in each city (see figure)?
- How can these actors be engaged to stimulate a culture of nature-based entrepreneurship and support the emergence and growth of nature-based enterprises?
- What is the level of knowledge and skills of the Connecting Nature team in your city in terms of supporting the emergence and growth of NBE? If skills gaps have been identified, how do you plan to address them?
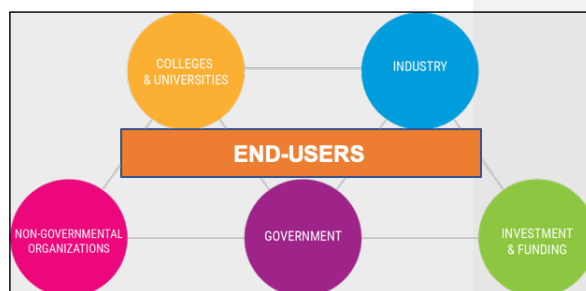
Step 3: Planning NBE strategy

Building on the city-specific context identified in Step 1 and the research results emerging from Step 2, Glasgow will be provided with guidelines to develop an NBE strategy in Connecting Nature before the end of 2019. We will aim to prepare the nature based enterprise strategy with input from internal and external stakeholders as part of an internal and external co-creation process. The external co-creation process should involve ecosystem actors as identified in step 2.

We will reflect on the following Guiding questions in order to complete this step:

- What are the primary objectives of your NBE strategy?
- How will NBE contribute to the implementation of your NBS?
- What measures are you putting in place to stimulate the emergence of a culture of nature-based entrepreneurship and to support the emergence and growth of NBEs?
- What innovation ecosystem actors have been engaged in the development of your NBE strategy and what actors are engaged in the implementation of the strategy?
- How will you know if your NBE objectives have been achieved? How will impact be measured?

Step 4: Implementation

We will then translate our NBE strategy into an actionable implementation plan by identifying from a resource perspective, _**who**_ will be following up with ecosystem actors and on specific measures to support the emergence and growth of NBEs and within what timeframe.

Specific quarterly calls will be organized by TCD with the responsible person(s) on each team to follow up on progress on implementation of this planning.

We will complete the following Financing & Business Model Implementation Plan:

Name of NBS exemplar	Action to be undertaken relating to NBE	Responsible person	Timeframe for implementation

Step 5: Reflection: opportunities and barriers

Finally we will list and describe the main lessons learned and learning outcomes from the financing and business models of your NBS exemplar. We will think about the main opportunities and barriers. Some of this learning may well come from the reflexive monitoring process that we are following.

8.0 Set-up and positioning of reflexive monitoring for the co-production and scaling of nature-based solutions

Reflexive monitoring is a dynamic process for facilitating the interrelated processes of learning-by-doing and doing-by-learning in real time. This process stimulates learning amongst the different actors involved in the implementation of nature-based solutions and the design and adjustment of actions targeted towards addressing barriers and opportunities for the successful implementation and stewardship of nature-based solutions. This chapter presents how the Poznan-team monitors and evaluates the implementation of their nature-based solution exemplar and present the reflexive learning outcomes of implementing the nature-based solutions framework.

8.1 Introduction

Below is a structured table that demonstrates how we use the reflexive monitoring process.

Method	Description how tools were used and experienced
Timeline of events - *A monthly overview of main events that influenced the exemplar (e.g. via bullet journaling).*	The Connecting Nature team have used an excel tracker to monitor relevant events and actions on a monthly basis. This allows us to keep track of events, identify a lead and ensure that lead is supported in their effort to resolve whatever issue has occurred in relation to open space strategy.
Critical turning points - *Important moments in time (e.g. challenges, positive outcomes, negative experiences) for the FRC-team because at these moments something changed in the process that helped or hindered to achieve the exemplar goals.*	Critical turning points were initially difficult for the team to define. This was because we did not have a full understanding of what these were in the context of reflexive monitoring. The team now understand that these are significant events that alter the direction of our project in some way and that may require further action by relevant team members. At the moment, we seem to only record potentially problematic events. Further investigation is required to also ensure that we are capturing the positive critical turning points as well because we recognise that positive influences are equally important to record and analyse.
Timeline workshop - *A tool to facilitate the monthly meetings of the FRC-teams to analyse the timeline of events and abstract challenges, successes and learning experiences and agree on critical turning points.*	The team uses our monthly meeting to invite along all relevant actors in relation to the identified critical turning points to discuss updates or ongoing actions. We have recently changed the format of this from a workshop style to more of a conventional meeting with an agenda. The content largely remains the same but we have found that it allows for a more meaningful discussion amongst the key players. Those who could perhaps be considered as 'satellite' team members (those from different departments/teams who may be in involved with particular Connecting Nature projects

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	or strategies) do not need to be directly involved in reflexive monitoring processes. This streamlines these workshops/meetings and allows the Connecting Nature team to more closely analyse progress in relation to the tracker actions. We have only had the opportunity to conduct the meeting in this way on one occasion. Although feedback was good, we will continue to monitor going forward.
Dynamic learning agenda (DLA) - *A brief document to encourage participants to continue working on change. It contains the challenges that the project is facing at that moment summarised in learning questions. It is used as a tool for commencing and supporting the dialogue about the challenges faced by the project. The agenda is dynamic because it is modified over the course of the project.*	Our dynamic learning agenda is captured within our analysis excel document. This has been coproduced between the team and the academic leads.
Eye-opener workshop - *The eye-opener workshop is an additional tool for turning outsiders into project insiders. The experiences and results of the project are shared and participants then reflect on the events, each from their own perspective to extract the lessons from the project experiences that are significant for their own situations.*	An eye-opener workshop has not yet been required.
Learning History Narratives - *Narratives written by the FRC-team members that summarises the learning journeys in a short story. This captures the 'personal' history of the project which most of the times is lost, because it is not captured in scientific publications or management reports.*	Glasgow's Connecting Nature team have not yet had an opportunity to complete a learning history narrative.

8.2 Lessons learned from reflexive monitoring in the first year

The reflexive monitoring process has been a challenging task for the Glasgow Connecting Nature team. This is, in part, due to a significant lack of resources within the team and throughout other Glasgow City Council departments. Losing team members at various points has further hindered this as any knowledge gained on the process was mostly lost. This also led to inconsistencies with the approach because the process was interrupted making it difficult to maintain momentum with the wider team members involved.

Our project is multifaceted and we work collaboratively with our partners, other teams and community organisations across the city. Therefore, we fully understand the benefit of having the reflexive monitoring process to capture the key turning points in the project's development. Since the Connecting Nature team has been re-established, one of our main priorities has been to make best use of the reflexive monitoring process as we realise it is a fundamental tool to ensure we are recording and analysing the impacts of our project. Below is a list of positive and negative learnings from Glasgow in the first year followed by a brief explanation on how these points have impacted the open space strategy:

Positive learnings

- The process allows a regular forum in which all those involved can contribute, update and set actions on how to overcome a particular issue/barrier;
- It means we have a record of critical turning points and who is leading on trying to resolve them;
- It encourages coproduction at different levels and involves different stakeholders;
- The process can highlight areas where we have skills gaps i.e. the team lack some knowledge on the business and financial aspects of nature-based solutions and this has led to one team member attending a workshop on this subject;

Negative Learnings

- We have often found the process to be a very 'academic' concept and sometimes difficult to explain to those not directly involved with Connecting Nature or those who may not have proficient research and analysis skills. This is particularly the case with the Dynamic Learning Outcomes;
- Related to the point above, the team have often felt that the language used and terminologies (such as 'dynamic learning outcome') are not user-friendly and can sometimes be rather ambiguous. This can be problematic and lead to confusing outcomes;
- Some inconsistencies in the guidance created barriers for the team at first (such as using 'social practices' or just 'practices'. These phrases have different meanings in English and so we needed to seek further clarification from academic partners.

Despite some issues with the process, the team are now learning to engage in a more meaningful way and have adapted the format to suit local conditions in Glasgow as explained in the table above. It is difficult to set out how the learnings above from the first year have directly impacted on the development of the open space strategy because we have only recently gained a workable understanding. The lack of understanding may have resulted in a slight delay to some development aspects of the open space strategy although this would probably be a negligible impact compared to other issues. However, it has helped raise awareness of the open space strategy with some actors who may not have been involved before such as with critical turning points 9, 10, 11 and 12 which all involve working across different departments and teams. It has also led to potential new data sources for the indicators and the GIS mapping as with critical turning point 6 where Rania has been overcoming silo working practices to find new data source contacts. Something that has only occurred to the team in recent days is that we can also use the process to record positive turning points too ('critical' often has negative connotations and can therefore be a misleading descriptive term). Going forward, the team will aim to fully capture those events too.

8.3 Reflexive learning outcomes

The first year of applying the reflexive monitoring methodology in Glasgow has resulted in different reflexive learning outcomes. These learning outcomes are reflexive since they reflect changes between the context and the initiative with regards to one or more of the following categories:

   a. Rules (e.g. official procedures, policy documents, policy processes, political context, regulation/legislation etc.)
   b. Relations (e.g. colleagues, stakeholders, market parties, local initiatives, NGOs, communities, local/regional/national institutions, between initiative and context)
   c. Social practices (e.g. how people speak about the project, events organised, changing perspectives on exemplar)
   d. Discourse (e.g. how people think/write about the project, agenda setting, mayor support)

Below a list of learning outcomes is provided with an indication of the category of reflexivity change to which they belong.

- *Practices*: Traditionally the department of the Glasgow team and the Glasgow City Council do not make a business model canvas. By however making one the broad values the nature-based solution exemplar aims to deliver are identified and colleagues of other departments understand these values better. This resulted in the use of the business model canvas as a communication tool and tool to identify funding.
- *Relations*: As a planning department we use the business model canvas as a communication tool with colleagues of other departments. We learned this is an effective new way of cooperating with other departments.
- *Relations & Practices*: Working collaboratively with Green Space Scotland (a NGO) we circumvent the procurement process of Glasgow City Council, which is not fit for purpose for the co-production and governance of nature-based solutions. In this way we can still proceed with the procurements needed in the process of co-producing and governing nature-based solutions.
- *Rules*: There was no alignment between the recruitment policies of Glasgow City Council and the recruitment needed for the co-production and governance of nature-based solutions. We took a new approach to communicate more effectively with the workforce board, which resulted in us being allowed to recruit in the way we want to recruit.