

SCOTTISH
FUTURES
TRUST

NPF4 DELIVERY RESEARCH REPORT

21 APRIL 2022



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1.0 Introduction

Revised National Planning Framework 4 (NPF4) recognises the importance of establishing a practical delivery programme that will facilitate achieving the collective ambitions of NPF4; a programme not just for one organisation or sector, but for all stakeholders.

To support this ambition and to inform the ongoing development of NPF4 Delivery Programme, Scottish Futures Trust (SFT) have undertaken an initial programme of research and engagement with key stakeholders, with an aim of:

- Establishing Key Principles and Themes for delivery of infrastructure projects including the National Developments (NDs)
- Testing key place-based recommendations from the Infrastructure Commission for Scotland (ICS) Phase 2 report¹
- Developing outline case studies for a small number of NDs reflecting application of key principles and themes from research as of 31 March 2022.

The whole infrastructure delivery lifecycle was considered: from project strategy and prioritisation to decommissioning and evaluation. The output from this work provides a tool in support of developing projects and programmes, with a particular focus on infrastructure. It allows for existing projects to be audited against good practice principles, with templates to support this review; and gives a clear guide on areas that need to be considered in developing new projects. While the NPF4 spatial policies are not considered directly, the good practice delivery themes include a reflection on the policy and spatial environment and related priorities at several stages. It is the intention that Scottish Government (SG) will incorporate this output into wider delivery programme structures, processes and guidance, to support ongoing development of not only infrastructure and the NDs, but also the wider NPF4, to achieve its vision and objectives.

2.0 Methodology and Approach

2.1 Evidence Based Focus

Information and evidence gathering in support of this output was undertaken between January and March 2022. A staged evidence-based approach was adopted, with three main activity areas as identified within 2.2-2.4 below:

2.2 Literature Review

To establish the key themes associated with good practice delivery, an extensive literature review was completed to assess key publications within the last 5-10 years focussing on relevant policies, statutory documentation, publications, articles, and guidance notes to ensure depth and breadth of industry documentation.

2.3 Stakeholder Workshops

Both workshops and one-to-one meetings were held, to:

- **Review:** Validate and challenge the key themes and sub-themes from the literature review
- **Explore:** To question and re-prioritise established themes, or identify additional themes and sub-themes
- **Test:** Key place-based recommendations from the Infrastructure Commission for Scotland (ICS) Phase 2 report and their role to support delivery
- **Discuss:** The challenges and opportunities of infrastructure delivery
- **Calibrate:** Output of the research relative to practical experiences within the industry

Workshops included cross-sectoral representation of the infrastructure industry. Appendix 1 provides the organisations included in this stage, which covers the public, private and third sector. We would like to thank all of those who participated.

2.4 Proposed National Development (ND) Case Studies

A summary of the selection process adopted in choosing the proposed NDs, considered in the case studies, is included within Appendix 2. The final projects chosen for the purpose of this report were:

- **ND4:** Urban Sustainable, Blue and Green Drainage Solutions (Metropolitan Glasgow Strategic Drainage Partnership only)
- **ND7:** Island Hub for Net Zero (Island Centre for Net Zero)
- **ND14:** Clyde Mission
- **ND17:** Edinburgh Waterfront (Granton Waterfront)

The case studies were developed through a mix of documentation review and workshops with key stakeholders. This sought to determine how the proposed NDs included in the draft NPF4 have considered good practice approaches to delivery, drawn from the literature review. Tools to support this included a simple template provided in Appendix 3, to consistently capture key data, structured around: context, gap analysis and key next steps.

On completion of the gap analysis, a simplified case study template was developed which is provided within Appendix 4; with the completed case studies within section 5.0.

The case studies represent a snapshot in time at close of the public consultation process of 31 March 2022.

2.5 Objectives

In establishing this methodology, our objective was to develop an output which reinforces effective project and programme delivery and in particular infrastructure delivery:

1. Through being clear on the key principles which need to be addressed in project development and management; and
2. By providing a simple process of project review, with tools (templates), demonstrated through the case study process

3.0 Good Practice Themes

3.1 Good Practice Themes and Key Principles in delivery

This section of the report considers the common thread of themes drawn from the literature review and refined during stakeholder engagement. It identified high-level key principles, which may be a valuable framework for challenge when developing projects. This framework is specifically focused on the infrastructure project and programme environment as identified with the literature review. It was seen that general good practice themes are clearly established, which while not unfamiliar, due to issues including resources, skills, time constraints and finances, can be challenging to implement.

There are several components or subcomponents that illustrate these themes, and which are particularly relevant to infrastructure. However, these are often interchangeable throughout the infrastructure lifecycle. As such, they should not be regarded as particular to only one good practice theme or stage of the project. Figure 1 highlights this interconnection.

Figure 1: Eight Key Themes of Good Practice



3.0 Good Practice Themes (Continued)

3.2 Theme 1 - Governance

Principle:

Establish a strong, responsive governance structure that flexibly responds to project and programme development needs; creating a culture of trust, openness, and transparency; and supporting a focus on skills, to ensure they are at the right place at the right time.

Tools:

Project charter, project development plan, peer review.

Strong **leadership** is essential within the project environment to direct, decide, guide, and support the project from inception to handover and deliver quality outcomes. This is particularly important given the nature of private/public developments, the cross section of participants, size, scale, complexity, and spatial context.

A suitably qualified leadership team should be identified with the requisite **skills, empowerment, responsibility, accountability, and ability** to provide advocacy in making decisions at both strategic and operational levels through the infrastructure lifecycle. Decision making should be robust, timely and transparent, supported by evidence-based project planning and clear prioritisation to align with the needs of the project.

In recognition of the multi-staged approach to project delivery, the structure of the leadership team should have inherent **flexibility** to respond to the demands of the project through leadership over time, and regular reviews to ensure the right people, in the right roles, implementing positive change at the appropriate time as the project transitions. A **culture** of trust, openness and transparency

should be established and driven by the leadership team from strategic to operational levels within the project.

A **Project Charter** is one tool that could be established with principal parties represented to manage agendas and establish the overall project vision. This Charter can be developed to create a framework which provides clarity on the vision, objectives, and principles to be applied.

From the above Charter, other delivery frameworks can more readily flow, including a **Project Development Plan** identifying the goals and objectives, project structure, how its participants will operate, their roles and responsibilities, the delivery framework, and how success will be measured should all be considered. This would be a live document.

Skills have been identified as a principal factor in the successful delivery of infrastructure projects in terms of both availability, sufficiency, and capacity. Common themes from the research have identified the need for upskilling, re-training, re-prioritisation or outsourcing as required to meet the demands of the project. Sharing of resources across stakeholders was also seen as a pragmatic model.

With resources at a premium, longer term look-ahead resource management planning should be considered at the commencement of projects, including the potential for utilisation of shared resources to capitalise on experience and skill base.

The introduction of third-party independent **audit** at key gateways within the delivery cycle by way of peer reviews has been identified as beneficial, providing a sense check and identification of go/no go hold points and inform key decision making. For larger projects or complex programmes of work, establishment of a Programme Management Office (PMO) could be considered.

3.3 Theme 2 - Collaboration

Principle:

Work together, fostering positive relationships to agree and meet collective ambitions and to access the best skills that deliver on those ambitions; engaging early and often with key stakeholders to understand their needs.

Tools:

Stakeholder mapping, engagement strategy, and stakeholder management plan

At a national, regional, and local level, research has identified the benefits of a common thread of consistent and quality collaboration, to remove perceived barriers or conflicts, irrespective of spatial boundaries. Working together, through a collaborative approach was identified as an opportunity for increasing the knowledge base, sharing of resources, facilitating exchange of ideas and lessons learned. Research identified barriers to collaboration and how to overcome them. The private sector identified effective collaboration as a **gateway to continual improvement** and consistency of approach across spatial areas, reducing risk and providing clarity on development requirements.

Engagement should be early, often, and in-depth and has been demonstrated to foster a more collaborative culture resulting in a positive impact on project delivery. The greatest 'Value Add' for outcomes are generated when undertaken at the outset of the project journey to bridge the gap between policy and practise.

Stakeholder mapping, engagement strategy and Stakeholder Management Plans would be useful tools to identify key participants in the project; clarifying their roles and expected outcomes, programme, and method of engagement. The creation of a culture in which collaboration is underpinned by respect, confidence, and motivation to deliver in a holistic manner were established as key success factors for delivery. The output of this approach was seen to achieve stronger alignment of strategic and operational objectives.

At the heart of engagement should be a focus on **community** throughout the project lifecycle, to clarify project objectives and address any development barriers. Community roles have been further strengthened in recent years, both through the Community Empowerment (Scotland) Act 2015 with greater clarity on the community role in decisions that matter to them; and land reform development which seeks to empower more people and communities to shape the future of the land, buildings, and infrastructure of the places where they live and work, and in doing so, to shape their own future. The Planning (Scotland) Act 2019 also introduces a new approach to planning in Scotland which aims to secure early and effective community involvement in the planning system.

How and when we include the community should be considered in programme and project delivery. The Infrastructure Commission for Scotland² recommended that infrastructure planning should include regular public engagement to inform long-term strategy. Considering cross-sectoral issues and long-term needs helps frame place decisions.

3.0 Good Practice Themes (Continued)

3.4 Theme 3 - Delivery Mechanisms

Principle:

Create a supportive suite of documents to develop, implement and oversee activity; effectively use the tools at your disposal, including statutory planning tools; and consider how the right partnership or relationship can support synergy in investment plans.

Tools:

Standardised templates, implementation, and review tools, possibly retained on a digital platform; with supporting processes that address key project activities.

Strong **Project Management** and the requirement for a Project Delivery Plan was reinforced during the literature review and engagement, to develop a clear understanding of the overarching aim of the projects and definition around key deliverables. The provision of a project toolkit incorporating standardised templates for identification, implementation and review management was identified as a positive initiative. It is anticipated the toolkit would focus on processes for communication protocols, brief development, scope definition, approvals, design, procurement, cost, change management, programme, health & safety, quality, and risk management.

Complementary Infrastructure Investment Plans are seen as useful to reflect prioritised and long-term infrastructure investment. Development of an integrated plan was identified as aligning programmes of delivery, recognising that some projects are more suited to local as opposed to regional or national delivery.

Partnering with other connected parties with a vested interest in delivery to achieve shared outcomes was recognised as a preferred model, capitalising on skills and experience from public, private and third sectors creating **synergy and optimising delivery** to maximise infrastructure outcomes.

As an example, **tri-partite agreements** were cited as positive examples of delivery mechanisms with agreements between developer, landowner, and Local Authorities, occasionally with Scottish Government acting as Guarantor, enforcing step-in rights if required. Whilst time consuming to conclude agreements, they have supported positive outcomes, through project certainty, market interest and therefore delivery.

Several **statutory tools** exist or are being brought forward within the planning framework including Compulsory Purchase Orders (CPO) and Masterplan Consent Areas (MPA's). Used effectively these can aid delivery.

3.5 Theme 4 - Investment Prioritisation

Principle:

Understand the user need and establish the business case to most effectively deliver that need; including testing the investment hierarchy model where an asset is proposed, within wider asset management ambitions.

Tools:

Development strategy, Investment Appraisal, Business Cases (Strategic, Outline, Full), asset register, database

The core principles of prioritisation focus on identification of programme and project requirements, with clear identification on what we are aiming to achieve, and the activities required to enable realisation, maximising the impact of limited resources.

To support this, a **Development Strategy** and **Development Appraisal** for each project can help make the case for change and identify projects as short, medium, and long-term classifications, distinguishing between aspirational and investment ready projects. This should include systematic assessment of critical infrastructure gaps, critical priorities to drive socioeconomic transformation, setting

actionable goals around these priorities and ultimate identification of projects to realise these goals. The strategy must meet the tests of effectiveness, efficiency, and public legitimacy in project prioritisation and, as appropriate, ensure long term sustainability.

Other tools include a comprehensive and well evidenced **Business Case**, needs assessment, financial appraisal, and risk assessment to support the project activation. This will require establishing a framework and process for translation of priorities and goals into a credible, prioritised, and viable pipeline of programs and projects.

The importance of maintaining an **Asset Register** of existing land and facilities was emphasised during workshops. This would inform decisions on investment priorities and as outlined in the Infrastructure Investment Plan³ investment hierarchy, which gives due consideration to including an assessment of existing assets to determine suitability in the first instance to repurpose, upgrade or renew elements of existing facilities, as opposed to new build proposals.

At a strategic level, the Development Strategy would benefit from consideration of cross-sectoral works planned locally, regionally, and nationally to determine interdependencies or spatial interface, with a suggestion to **create a database** to be updated as projects are delivered. The SFT construction pipeline⁴ is an example of this approach. This would not only support market certainty, but improve efficiency, identify best fit, create synergies, and reduce if not eliminate the opportunity for duplication or omission.

3.6 Theme 5 - Design and Sustainability

Principle:

Use the Place Principle to facilitate a sustainable and design-led approach which meets the needs of communities, while considering carbon and cost impacts over time; this should be established through an Infrastructure First approach; and consider the interface with Blue & Green Infrastructure.

Tools:

Place Principle, Place Guide and Design Guidelines.

The Scottish Government and COSLA have adopted the **Place Principle** to help overcome organisational and sectoral boundaries, encourage better collaboration and **community** involvement, and improve the impact of combined energy, resources, and investment.

The Place Principle and **placemaking**, support a design and community led approach which focusses on quality to improve the experience of our places; improve the lives of people; support inclusive and sustainable economic growth; and think beyond the site or authority boundary, to create a cohesive successful network of assets and places with distinctive character, that meet the need of communities. There are several components that need to be in place to support this ambition. The Place Guide is a useful tool⁵ in ensuring a consistent approach to placemaking.

It may be helpful to consider the distinction between 'place shaping' (strategic moves to shape how a place works), and 'placemaking' (the spatial experience of different strategies coming together in a place).

3 <https://www.gov.scot/publications/national-mission-local-impact-infrastructure-investment-plan-scotland-2021-22-2025-26/documents>

4 <https://pipeline.scottishfuturestrust.org.uk/>

5 <https://content.yudu.com/htmlReader/A44adc/sftplaceguidenov2021/reader.html?origin=reader>

3.0 Good Practice Themes (Continued)

A fundamental stage of the **Infrastructure First** approach is how the planning system identifies infrastructure requirements at different spatial levels early in the plan making stage. Addressing the barriers to delivery of essential infrastructure is likely to require a multi-faceted approach, covered across the principles and tools highlighted in this report.

Research demonstrated a Place based approach is a fundamental consideration at the earliest stages of a plan-led system to shape and direct sustainable growth in communities, inherently linked to this is a need to develop alignment between **development plans and infrastructure planning**.

Quality of Place, health and wellbeing are interlinked, and the planning system has an important role in ensuring that future development is supported by high-quality green infrastructure, supporting access to blue and green spaces to provide access to nature. This includes taking early and coordinated approach to **natural infrastructure** at project inception, as opposed to costly and inefficient retrofit solutions at the late stages of design.

The way we use our existing land and buildings can support **sustainable design** and make the best use of our **existing resources**. Maximising the useful life of existing assets and adapting and re-purposing them, including reusing vacant and derelict land, enhancing natural and cultural heritage can all create new opportunities. This requires having a clear understanding of our assets and future community needs. SFT are supporting SG in preparing guidance for public organisations when developing asset strategies and use of the new investment hierarchy. SG's investment hierarchy⁶ also provides a useful framework for infrastructure investment and prioritisation, helping develop a consistent approach to asset strategies.

Reflecting Scotland's **Net Zero Carbon ambitions**, considering carbon and whole life

impacts of decisions supports a reduction of greenhouse gas emissions and related climate impacts on our places, as well as creating economic opportunities. There is a growing suite of tools available to the public sector and others to optimise their approach, such as the Net Zero Public Sector Buildings Standard⁷ which is aimed at helping the public sector match their new build and major refurbishment projects to the requirements of net zero.

3.7 Theme 6 - Finance/Funding

Principle:

Take a whole life approach to capital and revenue costs; and develop an implementation plan that unlocks wider investment and impacts; targets funding and funding models that best support your aims; and gives market clarity through a transparent approach to developer contributions.

Tools:

Detailed cost plan, funding strategy, implementation plan, developer contribution strategy

Funding continues to be a challenging area. There are however good practise approaches that can help support investment and mitigate risk. Having up-front clarity on the breadth of finance, including both capital and revenue across the life of an asset were identified in the research. Targeting investment to maximise opportunities not only in wider impacts, but also in creating the conditions for success by leveraging additional private sector investment.

Funding and finance models and incentives should be reviewed and **innovative** ways to fund delivery identified. This has the potential to attract new investment, building business

6 <https://www.gov.scot/publications/national-mission-local-impact-infrastructure-investment-plan-scotland-2021-22-2025-26/documents/> (hierarchy page 10)

7 <https://www.scottishfuturestrust.org.uk/page/net-zero-public-sector-buildings-standard>

confidence, stimulate entrepreneurship and facilitate future ways of working. Within the published Delivery Programme, Scottish Government will as far as possible identify current SG funding programmes which will contribute to delivering NPF4 outcomes. This list is likely to evolve over time and so consideration will need to be given to keeping the programme updated as a 'live' document. Appendix 5 of this document provides a summary of funding and finance approaches that have been used successfully to support project delivery, with some case study examples.

Depending upon the project type, parties to the arrangement, procurement route adopted and alignment with third party funding requirements, projects could be substantially de-risked by provision of up-front collective funding models. It is however recognised that this is not always achievable and therefore will influence investment prioritisation.

Sources, Identification, availability, and certainty of funding were all identified as strong good practice themes, through both literature review and the engagement process. Having clarity on the availability and timing of funding was identified by the market as a key theme, which can enhance published programmes of infrastructure investments. This would remove a significant risk and thereby support investment decisions. This financial clarity also includes understanding developer contributions, and the timing of investment expectations. This could not only support market certainty but create a more positive stakeholder relationship. A long-term and partnership approach to accessing funding was identified, creating synergies across stakeholder priorities.

The importance of **whole life costing** was recognised as critical, and emphasised that development appraisals and funding applications should consider all project costs from acquisition, statutory contributions and levy's, statutory fees, professional fee, construction costs, operation and maintenance costs.

To aid agreement of recovery and revenue streams, **rationalisation**, and **standardisation** of approaches to developer contributions was identified as a positive step. This would allow the private sector to anticipate 'standard' costs i.e., cost per house, desk recovery with an index to reflect spatial differences. This greater certainty to cost exposure would create a time benefit to project delivery without the need for protracted and extended negotiations.

3.8 Theme 7 - Risk Management

Principle:

Establish a rigorous risk management approach which supports objectives, while supporting market certainty through transparent processes and expectations, including clarity on risk allocation; with regular review milestones for ongoing refinement.

Tools:

Risk management plan and process

Given the size, scale and complexity, the very nature of infrastructure delivery contains inherent risks, and as such a robust risk management process requires to be identified at project inception, clearly identifying the overall approach to risk. This includes the requirement to adequately **capture the risks and opportunities**; the strategic risks should the project fail to proceed; who owns the risk; mitigation measures required; potential impact in terms of cost, programme, and quality; opportunity lost; and resultant impact.

The consensus from research identified the positive benefit of robust risk management to enable planning for certainty, or a clear understanding of parameters within which the project operates. A robust risk management process should be adopted for all projects with shared ownership for identification, assessment, monitoring and discharging as the project

3.0 Good Practice Themes (Continued)

proceeds. Regular risk reviews should be undertaken to actively manage the risk, re-assess ratings, status and identification of further risks and opportunities to be incorporated as projects transition through the infrastructure lifecycle.

For developers, **understanding, identifying** and appropriate **allocation** of risk were identified as the common influencers in agreeing whether a project should proceed. An example cited, related to the obligations and costs contained within developer obligations as noted under Theme 6: Finance/Funding. If identified at inception these costs can often be accommodated within development appraisal and cashflow projections, as opposed to retrofitted at the approvals stage, creating potential delays in negotiation, delivery, and construction.

It was concluded from discussion that market certainty supports market confidence which leads to development.

3.9 Theme 8 - Monitoring and Evaluation

Principle:

Establish an early monitoring and evaluation framework, with a clear baseline, that both supports clarity on the appropriateness of delivery activities to meet goals; and post-delivery reflection on whether those goals were met and why, to support ongoing lessons learned and future project refinement.

Tools:

SFT Briefing and Evaluation Framework, Gateway review process, Project Development Plan.

Establishment of **what** we are trying to achieve and how we will measure successful outcomes

defines the strategy for **how** we implement projects. This enables development of the monitoring and evaluation process to be adopted for construction implementation, but more importantly the broader social, economic, and environmental impacts of projects over time.

Several existing monitoring and reporting arrangements currently exist within the industry identified as **Good Practice** which provide accountability and transparency in delivery of projects. Early development of a monitoring and evaluation framework is key to the success of any project. This starts from **identifying the needs** being addressed and therefore the outcomes being sought. To support this, SFT has developed a Briefing and Evaluation Framework⁸ to support anyone embarking on any form of infrastructure investment, to better define, develop and evaluate the outcomes they are seeking to achieve. This document offers a best practice approach to brief planning, stakeholder engagement, development of objectives and measurement of success. Going through such a process can support clarity on objectives which can flow into the monitoring and evaluation approach. This includes establishing a baseline at an early stage, from which impact will be monitored.

Evidence based testing and **knowledge sharing** within the industry have been identified as key components in creating an informed and realistic baseline for the project environment, enabling identification of the framework in which successful project outcomes can be established.

To support the best outcomes, within the project development plan, we should establish a **route-map** for a structured evaluation and monitoring process, including achievement of targets to align with the vision, goals, and objectives. This may take the form of identification of **Key Performance Indicators (KPI)** and how they will be measured. For the project implementation this will include all key technical project matters

relative to approvals; funding; costs; design; procurement; programme; completion and handover; occupation and legacy. While in understanding whether the development has addressed the need identified at the strategy and prioritisation stage of the lifecycle, metrics that can evidence that impact should be identified.

The monitoring and evaluation process should include a **gateway** process for regular review at key milestones in the project lifecycle, comparing progress versus vision and projected outcomes, review of works completed, decisions required, forward planning and approval to progress to the next stage. The gateway review provides a useful tool in sense checking alignment with the original objectives. This should have built in flexibility, to pause and reflect, identify further works required, enabling corrective action to be identified as appropriate. In addition, the provision for off ramp should be created if the project review questions the requirement or viability for the project which may be influenced by factors out with the project environment.

At project completion, a **lesson learned** review should be undertaken involving all key stakeholders to assess outcome versus vision and goals. This exercise should consider: what elements were regarded as successful; gap analysis; areas of potential improvement; and reflection on how improvements can be implemented in future projects.

To capitalise on the benefit of the lessons learned review, the output should be made available on a common platform and shared for other public/private and third sector parties to access to develop an approach of continuous improvement in delivery.

In assessing the long-term impact of the project achieving against identified need, this is likely to require an ongoing and longer-term process of evaluation. This reflects the long-term nature of infrastructure and its impacts.

A summary of the Key Principles for each theme within this section is provided in Appendix 6.

4.0 Case Studies

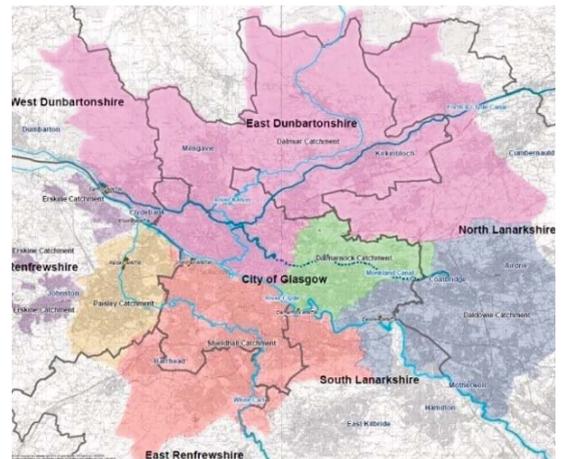
4.1 Case Studies

The following case studies represent the status of the National Developments as of 31 March 2022 at close of the NPF4 consultation process. Whilst the projects status may have progressed further at time of NPF4 publication, the case studies should be utilised to demonstrate good practice activities which align with the themes previously identified.

4.2 Case Study 1: National Development 4: Urban Sustainable, Blue and Green Drainage Solutions (Metropolitan Glasgow Strategic Drainage Partnership only)

Project The Metropolitan Glasgow Strategic Drainage Partnership (MGSDP) is a non-statutory, collaborative partnership between public bodies involved in managing surface water, water quality, flood risk, investment planning and economic development in a regulatory, service provision, asset management and / or infrastructure provision capacity, since commencement in 2002.

Spatial Context The extent of the four main Glasgow wastewater treatment works (WwTWs), plus Paisley (Laighpark) WwTW and Erskine WwTW. Varying levels of engagement depending upon project status within each authority.



Project Vision /and Objectives

Vision: To transform how the city region thinks about and manages rainfall to end uncontrolled flooding and improve water quality.

The Vision will deliver the MGPSD Objectives through alignment with the MGSDP:

Guiding Principles: to sustainably drain the Glasgow city region.

Objectives: River water improvement; enabling economic development; habitat improvement and integrated investment planning.



Current Status	<p>Through a range of funding mechanisms, including capital programmes, EU funding and the Glasgow City Region City Deal programme, proactively working in partnership and with key stakeholders to deliver a programme of water quality and resilience schemes targeting areas of the city where rainfall adversely impacts communities and the water environment. The schemes will reduce flood risks and impacts, improve water quality, bring greenspace improvements through blue-green interventions, and increase drainage capacity. Increasing drainage capacity enables land release for new homes and business, supporting continued economic development and regeneration.</p>
Programme	<p>A variety of projects ranging in scope to include channel improvements. Retrofit for surface water management and greenspace improvements have been delivered as identified within https://www.mgsdp.org.</p>
Policy Context	<p>Scottish Government policy on planning, flood prevention and flood warning; Flood Risk Management (Scotland) Act 2009; Flood Risk Management Plans; Active Travel Strategy; Glasgow Transport Strategy; Liveable Neighbourhoods Plan; City Centre Transformation Plan. Technical policy and guidance notes from SEPA; Scottish Water; National Park; Scottish Forestry Land Commission; Scottish Flood Forum; National Flood Management Advisory group. Local Authority Development Plans.</p>
Governance & Stakeholders	<p>The MGSDP is a non-statutory, voluntary, collaborative partnership. There is no formal partnership agreement. However, Terms of Reference have been identified for the various meetings to include Board, Steering Group, Technical Group, Communications and Manager.</p> <p>Partners include: Glasgow City Council; Scottish Water; SEPA; Clyde Gateway; Scottish Canals; The Scottish Government; Clydeplan; Scottish Enterprise; South Lanarkshire Council; North Lanarkshire Council; East Dunbartonshire; Council Renfrewshire Council.</p> <p>Stakeholders include: Central Scotland Green Network; Climate Ready Clyde; Scottish Forestry; Glasgow & Clyde Valley Green Network; Network Rail; NatureScot; Transport Scotland.</p> <p>A strong governance structure is identified in terms of reference for all levels identifying roles/responsibilities (direction, financial, approval, comms, changes) and scope. The governance ensures the Vision and Guiding Principles are disseminated and adopted with partner organisations.</p>
Funding and Costs	<p>Funding for project delivery is from a range of sources, depending upon the project lead, drivers and outputs, including: - Partner capital programme; Scottish Government Flooding Capital Programme; Glasgow City Region City Deal; EU ERDF; Vacant & Derelict Land Funding; Water Environment Fund; Sustrans; Nature Restoration Fund, etc.</p>

4.0 Case Studies (Continued)

Risk Strategy

The Partnership has established a strong risk assessment and management program identifying risk, owner, scores, resources, costs, and clear mitigation strategy which is reviewed on a regular basis. In addition to consideration of risks, the Partnership has also undertaken a regular assessment of opportunities.

Monitoring and Evaluation

Each project is managed by individual organisations with their in-house systems for monitoring and evaluation of project delivery, update of asset management plans, with reports on progress presented to the Steering Group and Board.

Key Good Practise Themes

The nature of the partnership formation across multiple agencies has demonstrated strong collaboration. With improvement in sustainability, connectivity and creation of places, sustainability, adaptation and place making is at the heart of the network establishment, as individually delivered projects or part of a larger works. Clear analysis on identification of needs, and as such prioritisation of projects which release sites for development. Detailed approach to identification, management and sharing of risk.

Key Themes: Collaboration; Design and Sustainability; Investment Prioritisation; Risk Management, Placemaking, Adaptation.

Gap Analysis

- Resources, given voluntary nature
- Benefits of additional organisations contributions within the partnership
- Early engagement by parties to incorporate Blue and Green Infrastructure requirements at design as opposed to retrofit solutions
- Recognition of partnership role expansion beyond drainage / water quality only towards creating great water resilient places.

Key Themes: Governance, Collaboration, Placemaking

Next Steps

- Re-consider partnership title to reflect evolution and expansion since establishment
- Lessons learned and read across with Edinburgh and Lothians Strategic Drainage Partnership
- Refresh objectives to align with above
- Formalisation of Partnering Agreement (if benefit perceived)
- Local Flood Risk Management Plan published 2022
- Identification of funding sources post City Deal
- Methods for improving data sharing
- Resource assessment and planning
- Secure funding of PMO post 2024

For Further Information

A full description of many of the projects delivered by MGSDP partners can be found on www.mgsdp.org

4.3 Case Study 2: National Development 7 - Island Hub for Net Zero

Project

The Island Hub for Net Zero supports proposed developments for renewable energy generation, renewable hydrogen production, infrastructure and shipping, and associated opportunities.

This is in alignment with the low carbon energy projects within the Islands Growth Deal which are being developed by Comhairle nan Eilean Siar, Orkney Islands Council and Shetland Islands Council together with their partners in the public, academic, business and community sectors. The Islands Growth Deal is focused on putting the islands at the forefront of the transition of net zero, strengthening existing industry sectors and developing new industries of the future.

The Island Growth Deal aims to capitalise on the islands' unique assets to create world class, innovative and globally focussed industries that will help address severe demographic challenges and strengthen the distinct and important contribution the islands make to the economic vitality and international reputation of Scotland and the United Kingdom.

With shared opportunities and challenges, the islands have identified the benefits of working together to combine resources, share access to the best subject matter expertise and strengthen local collaborative capacity and capabilities.

Central to this programme is the creation of the Islands Centre for Net Zero (ICNZ) which is being established to address the need for fundamental change in how we approach the energy transition, empowering the islands to navigate the pathways and own the solutions to decarbonisation.

Spatial Context

Western Isles, Shetland, Orkney, and surrounding waters, with the ICNZ being in Orkney.

Project Vision/ and Objectives

Working from the ground up with local communities and businesses, empowering the islands to navigate pathways to decarbonisation, ICNZ will look to deliver:

- An accelerated transition to Net Zero
 - Improve the sustainability into the islands through the development of new economic activity adding over 300 jobs and £150M GVA, whilst reducing the financial impact from challenges such as fuel poverty
 - Develop a global centre of excellence which produces solutions that can be replicated beyond the island group, delivering international impact and new routes for export
-

Current Status

Establishing ICNZ has followed a staged development process which is driven by the Green Book requirements and government review processes. Heads of Terms were signed with both governments in March 2021 and current projections anticipate OBC approval in early 2022, followed by FBC preparation, to allow the Final Deal Document to be signed later in 2022.

4.0 Case Studies (Continued)

Programme

Program for establishment of the ICNZ through to delivery is outlined as: -

Years	Phase	Activities
1-3	Phase 1 – Set Up	Recruitment, fund-raising, website, marketing, communications External engagement events and stakeholder participation Establish data exchange facilities and initiate shovel ready demonstration projects
2-4	Phase 2 – Innovation	Commissioning ICNZ Toolbox Research Digital Twin simulations, gamification of scenarios, modelling of options Initial transition project approvals and commissioning
3-6	Phase 3 – Interdisciplinary Delivery	Coordination, fund raising, partner innovation and regulatory adaptation Delivering energy shift projects across heat, power, and transport networks Engagement across academia, business, community, and government organisations
5-8	Phase 4 – Optimisation	Roll-out of pioneering energy transition solutions Evaluation and monitoring Stakeholder journey review workshops
7-10	Phase 5 – Energy Transition	International network of low carbon islands established and online interactive service platform Final capital investment towards hard to shift energy transition projects Evaluation and monitoring

Following establishment, ICNZ will operate to enable, accelerate, and support activities across a wider landscape of transition projects.

Policy Context

Key policy documents which are informing the establishment and aims of the ICNZ include the UK Government's legislation requiring greenhouse gas emissions to reach 'net zero' by 2050 (June 2019), Scottish Government Second Scottish Climate Change Adaptation Programme (Sept 2019), UK Government's Sixth Carbon Budget (Apr 2021), Scottish Government Carbon Neutral Initiative, Scottish Energy Strategy 2050, National Grid Future Energy Scenario's, Climate Change Plan update (December 2020) and the Scottish Government's commitment to achieve Net Zero emissions by 2045.

Governance & Stakeholders

Heads of Terms has been agreed between all parties, and governance arrangements for how the partners will operate is being established which includes the formation of an Independent Advisory Group, interaction with the Island Deal Programme Board and Joint Committee, as well as Centre specific management processes.

A **Collaboration Agreement** will be established between primary project partners, detailing the contractual relationship required to deliver the centre's activities which includes governance and decision making; financial rules; intellectual property; freedoms for publications; confidentiality; liabilities; partner withdrawal; contractual terms fed down from deal funding; ethical, inclusive, and fair working; good management practices; data protection; and agreements with external parties.

Funding and Costs

The Centre is dependent on funding from the Growth Deal to setup and operate, which committed both UK and Scottish Governments to invest a total of £100m across eighteen projects, split equally between each Island group. Accounting for additional project partners investment, the Islands Growth Deal is forecast to be worth a total of £335m over ten years. ICNZ is supported through a £16.5M funding package from the Islands Deal (£11.6M Capital and £4.9M Capitalised R&D). It is assumed the funding will start in late 2022 and each partner will develop a detailed cashflow model for their expenditure in the FBC.

Risk Strategy

Detailed risk management process will be established identifying category; risk; consequence; likelihood; impact; mitigation measures and owner which is reviewed and updated on a regular basis. ICNZ's risk strategy considers scope, stakeholders, change management, financial impact, resources, technology, regulations, learning and skills, public opinion, market impact and supply chain.

Monitoring and Evaluation

Primary spending objectives are associated with business need, strategic fit, potential achievability, supply side capacity & capability and affordability. Evaluation processes include gateway reviews, project evaluation reviews, post implementation plan and key performance indicators (KPIs).

4.0 Case Studies (Continued)

Key Good Practise Themes

ICNZ is in the establishment phase and have produced a detailed Outline Business Case and will progress to Full Business Case in Summer 2022. There has been a comprehensive review on structure of operations, roles and responsibilities and targets to achieve design requirements for net zero; with detailed long-term program outlining key activities for achievement. Detailed assessment of risks and strong mitigation strategies identified.

Key Themes: Collaboration; Risk Management; Governance; Design and Sustainability

Gap Analysis

Development of individual projects following FBC approval; scaling of resources to meet project demands; securing funding for proposed initiatives.

Key Themes: Investment Prioritisation; Governance; Finance

Next Steps

- Collaboration agreement
- Full business case (FBC)
- Grant agreement
- Implementation plan
- Benefit realisation strategy
- Resourcing up

For Further Information

A full description of all the projects within the Islands Deal can be found on www.islandsdeal.co.uk.

4.4 Case Study 3: National Development 14 - Clyde Mission

Project

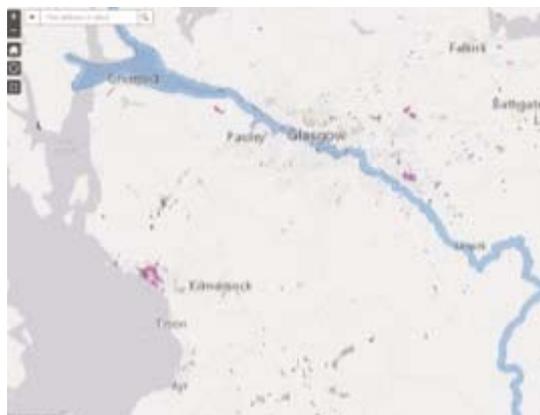
Clyde Mission was launched in early 2020 in response to the recognition that the River Clyde is a strategic economic asset and both the river and the riverside area could better support shared objectives between Scottish Government and its key partners. A **Grand Challenge was set: to make the Clyde an engine of inclusive and sustainable growth for the city, the region and Scotland.** A mission approach is being taken to delivery, led collaboratively by the Scottish Government, Glasgow City Region, Scottish Futures Trust, Scottish Enterprise, Skills Development Scotland, Scottish Environmental Protection Agency (SEPA), University of Strathclyde, University of Glasgow, Clyde Gateway and seven local authorities that the river runs through. The Clyde Mission's operational and governance structures have embedded key national and local stakeholders.

The Clyde Mission is intended to take a fresh approach, building in extensive engagement and effective feedback loops to generate and refine ideas; enabling collaboration and innovation around shared policy problems; and seeking to secure impacts that are relevant to the needs of local communities. It is acknowledged as a methodology that may take longer, however equally strengthens impacts.

The Five Missions are at various stages of development, however a clear governance structure, key analysis and strategic reports relating to both economic opportunity and climate risks have been developed to guide the future programme; and several early investments are underway.

Spatial Context

The Clyde Mission area includes the River Clyde and the riverside, up to around 500 metres from the river itself. This immediate area encompasses strategic assets; 170,000 people; 138,000 jobs; more than 8,000 businesses; 73,489 domestic properties; and 12,646 non-domestic properties.



4.0 Case Studies (Continued)

Challenges within this spatial area include sites at risk of flooding; communities facing high levels of entrenched deprivation; clusters of high value industry; and a legacy of industrial heritage. There are therefore opportunities to connect new and existing economic opportunities with areas of need and learn lessons from previous activity in the seven Councils with a riverside frontage. The boundary is considered semi-permeable, in recognition of a flexible approach that will consider proposals that lie out with the immediate Clyde Mission boundary, where there is clear benefit in support of the Grand Challenge. This has been seen in the Energy Masterplan which included an additional 2,000m buffer as it was recognised that, in some cases, activity that brings the river into use may sit outside of the 500m boundary.

Project Vision /and Objectives

Clyde Mission's Grand Challenge is to make the Clyde an engine of inclusive and sustainable growth for the city, the region and Scotland. Clyde Mission ambitions and activities are based around five missions:

1. Create new, good, and green jobs, and a workforce with the skills to secure those jobs
 2. Use vacant and derelict land for the benefit of the economy, the environment, and communities
 3. Adapt to climate risks, especially flooding
 4. Accelerate Scotland's progress to net zero
 5. Use the river to create better places for people and communities.
-

Current Status

These Missions are reflected in the governance structures with 5 Mission groupings established in late 2021. Work to date has involved establishment of baseline, stakeholder engagement and other policy and project scoping work to inform the next steps. Data and analysis activity has been supported by the Glasgow City Region Intelligence Hub and other key partners. There is also significant collaborative work underway to develop networks that will support the activity needed to achieve the Grand Challenge. In addition to this work, some early strategic reports and investments are being or have been delivered, including:

- £13.62m of Clyde Mission funding has been allocated to 13 projects following a call for applications. This part-funding has brought in additional investment from across sectors. Work is underway on all the projects, and some have been delivered.
 - £25 million Clyde Mission Heat Decarbonisation Fund being launched later this year, supporting zero emission heat projects and communal heating systems along the length of the Clyde.
 - A report on Climate Adaptation pathways for the Clyde, which is nearing completion
 - Completion of Clyde Energy Masterplan, with work underway to determine which of the recommendations may be taken forward
-

-
- Study into maritime opportunities on the Clyde, alongside related industry engagement.
 - Study into potential of publicly owned land for greening projects – being delivered by Green Action Trust
 - Support to the University of Glasgow’s GALLANT project (Glasgow as a Living Lab for Novel Transformation)
-

Programme

Stages of Work

Three stages of activity have been identified:

Stage 1: Idea Generation

Stage 2: Business Case development

Stage 3: Delivery

There is currently no established timeframe for each stage, and it is expected that the five Missions will progress at different rates, resulting in a project pipeline that will be delivered when projects are ready, and funding is secured. The overall Mission is focusing on the mid-long term, reflecting the challenges and ambitions. A decision-process strategy supports progress across these stages, with the Mission Groups central to the process.

Policy Context

Clyde Mission is responding to local and national policies and frameworks, including Scotland’s National Performance Framework and National Strategy for Economic Transformation.

Governance & Stakeholders

Stakeholder mapping has informed the roles and involvement of key stakeholders in the Clyde Mission.

The Clyde Mission Strategy Group (CMSG) was established in June 2021 and provides the most senior level of accountability, with clear terms of reference. Chaired by Scottish Government’s Director of Economic Development, it has senior membership from the public sector and academia, including members from the seven Local Authorities along the Clyde.

Delivery is being undertaken through five missions, with mission groups feeding into the CMSG, through the Mission Leads; as well as a cross-mission group to support cross-working and learning. While the CMSG is led by SG, the Missions are led by partners who are establishing their own cross-sector teams to deliver the Missions. As the key delivery structure, the effectiveness of Mission Groups is regularly reviewed, with action as necessary to further improve their impact. Principles for the Missions are being developed, guiding how the various Mission Leads and Mission Groups operate together.

Other strategic groups and networks have been established as needed, responding to spatial areas or cross-cutting interests, such as innovation.

4.0 Case Studies (Continued)

There is a core support team that meets at least weekly and includes a dedicated Scottish Government Clyde Mission team and partners from SE, SDS and SFT. This group has established a clear structure including high level roles and is supported by two strategic advisors with expertise in local economic development. Like the Missions, this team has recently been reviewed, to achieve the best impact.

Historic public engagement data is being analysed to understand community need. In addition, a Call for Ideas consultation took place in March 2021, to capture the current priorities of people who live and work in or near the Clyde Mission area. More public engagement is anticipated in the future, however, is likely to be focused on programmes and spatial areas.

Costs & Funding

Costs

A prioritised list of actions with related costs has not been developed yet, reflecting the stage of activities. Some early grant funding was committed to 13 projects brought forward by local authorities, as noted below.

Funding Strategy

A formal funding strategy is not yet in place, however reflecting the Mission approach, the Clyde Mission Strategy Group members were chosen from organisations that have the levers, resources, and expertise necessary to achieve the Grand Challenge.

Funding

Funding of current activities are primarily via SG grant funding and the commitment of partners' time. The analytical support from the GCR Intelligence Hub is being jointly funded by GCR, SG, SE and SDS. In addition to this, two main grants have been secured, funded by SG:

- £13.62m Clyde Mission Fund, fully committed.
- £25m Clyde Mission Heat Decarbonisation fund is intended to be launched later this year.

Risk Strategy

A programme level risk register has been created and work is ongoing to refine this. When Mission directions are established and project ideas begin to emerge, a more detailed risk exercise will be undertaken with Mission Leads. In addition to this more technical approach, the governance structures have been developed to address the potential risks around delivery.

This includes the cross-Mission Group where emerging project proposals are tested to minimise the risk of insufficient alignment, both between the Missions and against the Grand Challenge.

Monitoring and Evaluation

Work to identify high level success measures has begun, and Mission Leads are expected to be asked to report on progress against success factors on a six-monthly basis. Reflecting the methodology of a mission, these also seek to capture the positive impacts of this approach.

Current Mission Group activity is tracked fortnightly and shared within the relevant governance structures. Further tools for cross-mission communications are under consideration.

Key Good Practise Themes

The Clyde Mission is still at an early stage of development, however, has delivered on some clear areas of good practice in this time. Some areas worth highlighting are:

- Accessing historic public engagement data to support an understanding of need, rather than repeating broader engagement unnecessarily.
- Sharing the key skills of stakeholders, through the Mission Group model; as well as the Core Support Team being drawn from across public sector stakeholders.
- A clear review and challenge approach has been demonstrated, with an audit of the governance model and support needed to support the Mission Groups; as well as establishing a Cross-Mission Group.

Key Themes: Collaboration; Stakeholder Engagement; Risk Management

Gap Analysis

While there is clear good practice and progress in establishing Clyde Mission, it is still in early stages of development. Some areas identified in the gap analysis are planned in immediate next steps. Some additional areas worth considering are:

- Following completion of key success criteria, identifying metrics for the Mission Groups and the Grand Challenge overall will support decision-making and monitoring & evaluation. This should align with the Mission model and support the programmes set out in the National Strategy for Economic Transformation.
- Agreeing a clear prioritisation approach to workplans would be valuable, providing both programme and market clarity.
- Considering the wider role of the private sector, many of whom will own land and other assets within the Clyde Mission boundary, may be usefully incorporated in next steps.
- Developing a transparent funding strategy could also support investment decisions as well as the prioritisation framework.

Key Themes: Monitoring and Evaluation; Investment Prioritisation; Delivery Mechanisms; Funding

4.0 Case Studies (Continued)

Next Steps

Priority steps include to:

- Allocate available funding (i.e., £25m for heat).
- Support Mission Leads to identify actions that can be taken in each of the Mission areas to work towards the Grand Challenge.
- Support Mission Leads and CMSG to identify delivery routes.
- Cross-Mission activities, including embedding the Place Principle in workplans.
- Complete the Clyde Mission Flood Adaptation Study.
- Complete analysis of historic community engagement data.

For Further Information

W: <https://www.gov.scot/publications/clyde-mission/>
<https://glasgowcityregion.co.uk/what-we-do/strategy-and-programmes/clyde-mission/>
E: clydemişsion@gov.scot

4.5 Case Study 4: National Development 17 - Edinburgh Waterfront

Project

Edinburgh Waterfront

Edinburgh Waterfront is a strategic response to the city's growth needs, with a long-term commitment to transform the waterfront into a landmark feature, attracting high quality developments. This will see new urban quarters developed at Leith and Granton waterfronts.

The current focus for Edinburgh Waterfront's regeneration is an ambitious masterplan for Granton; the tram extension to Newhaven; and potential development at Seafield. Reflecting The City of Edinburgh Council's strong landowner role at Granton Waterfront, current attention is on this site, with the expectation of stimulating wider confidence and investment in the area. This case study will focus on this immediate activity.

Granton Waterfront

The City of Edinburgh Council has been establishing a route to development and change for the area since 2018, with a 15-year programme of investments and activity planned to create a new low carbon coastal town for around 8,000 people. A phased investment approach has been agreed which maximises market certainty, unlocks key sites and supports the best use of available funding. The most recent strategic document is the Outline Business Case completed in 2021, with work underway to produce the Final Business Case for phase 1 of regeneration.

Over the next 10-15 years, the regeneration of Granton Waterfront will create around 3,500 new net zero homes (of which at least 35% will be affordable), a low carbon energy network which will serve the new development, key assets within the wider area supporting social infrastructure to enable people's lives (e.g., a school, medical centre), a large coastal park and creative, culture and commercial space to drive inclusive economic activity. In addition, sustainable transport will be at the heart of the development: new cycling and walking routes and enhanced public transport connections with the city will be created promoting active, sustainable travel whilst reducing car kilometres making a significant contribution to Edinburgh's target to become a net zero carbon city by 2030.

Strategic Partners will also invest in Granton over the proposed period.

National Galleries of Scotland and National Museums Scotland, as Scotland's national cultural institutions are playing a central role in investing in new facilities and key public spaces within Granton. Both are progressing design development of new buildings and public realm, aimed at caring for the nation's collections whilst connecting arts and cultural heritage with the community to deliver against the National Performance Framework goals and growth of the cultural economy. In addition, Edinburgh College are redesigning their current estate with their campus in Granton to be the centre for providing learning programmes that focus on low-carbon skills, modern methods of construction, data driven innovation and new technology.

4.0 Case Studies (Continued)

Spatial Context



Granton Waterfront is a 150-hectare site on the Firth of Forth in the northwest of Edinburgh. Historically dominated by the former Granton Gasworks, the site now comprises a mix of vacant brownfield land, ageing industrial estates and derelict historic structures, along with pockets of residential use and green space.

The area surrounding the development site includes several communities facing persistently high deprivation challenges.

Addressing the needs of these communities is a key component of wider regeneration ambitions.

Project Vision/ and Objectives

The planned investments and activities at Granton Waterfront are being designed around four strategic goals:

- Create a new blueprint for net zero carbon development that supports sustainable living in the context of a changing climate
- Be a driver of sustainable, inclusive economic growth, job creation, prosperity and resilience for local communities and the wider city region
- Create a vibrant, well connected, and welcoming coastal community with a strong sense of identity as a place that is inclusive, attractive and accessible to all
- Accelerate the delivery of development on brownfield sites to meet Edinburgh and the City Region's housing need.

Current Status

The Council have made significant progress with delivering the vision for Granton, with stages 1 and 2 of the 4-stage programme development complete, including the completion of the Outline Business Case and culture and learning strategies to support wider regeneration activities.

Early action investments have also commenced, which will set the standard for future investment, whilst creating a sense of place from day one. These early action projects include delivery of approximately 700 net zero carbon homes, culture, leisure and business start-up space, the restoration of the gasholder alongside high quality public realm and enhanced linkages with the shore. There is a clear decision-making structure to guide investments that will stimulate further opportunities while creating immediate impacts.

Programme

Timeframes

Project Development and assurance is being taken forward in four stages:

Stage 1: Programme Delivery Plan: April 2019 – January 2020 (complete)

Stage 2: Outline Business Case: Autumn 2020 – Autumn 2021 (complete)

Stage 3: Final Business Case(s) for phase 1 of regeneration: Summer 2022 – Winter 2023

Stage 4: Procurement and on-site delivery: 2022/23 – end of project, anticipated 2037

Investments are planned over 5 phases:

Early Action Projects 2022–2026

Phase 1: Heart of Granton, May 2024–April 2028 (including a pre-development phase)

Phase 2: Harbour Road, March 2026–May 2031

Phase 3: West Shore, June 2026–May 2033

Phase 4: Upper Granton, August 2031–May 2036

Policy Context

Several national, regional, and local policies have guided the investment objectives and proposed impacts, including: Scotland's Economic Strategy; Housing to 2040 Vision; City Vision 2030; Council's Business Plan; the City Mobility Plan; 2030 Climate Strategy; and City Plan 2030.

4.0 Case Studies (Continued)

Governance & Stakeholders

While Council led, there are six key public sector Strategic Partners to ensure alignment of investment and delivery of regeneration outcomes: The City of Edinburgh Council, Edinburgh College, National Museums Scotland, National Galleries of Scotland, Scottish Government and Scottish Futures Trust.

There are clear accountability and oversight structures; with high level commitment demonstrated by the City of Edinburgh Council Chief Executive who chairs the Edinburgh Waterfront Strategic Partners Board.

There are specialist steering groups and a project team to oversee and deliver activities.

A stakeholder management strategy guides current communication and engagement, including public engagement. This aims to support clarity of communication as well as ongoing analysis and understanding of need.

Costs & Funding

Cost Plan

	Cost	Funding	Net Position
Heart of Granton	£197.5m	£127.4m	£70.1m
Harbour Road	£201.2m	£59.8m	£141.4m
West Shore	£127.2m	£46.8m	£80.4m
Upper Granton	£163.2m	£73.9m	£89.3m
Total	£689.1m	£307.9m	£381.2m

Funding Secured

Several Scottish and UK Government grants have been secured to help fund and take forward early action projects – RCGF totalling £3m, Town Centre Funding of £1.9m, VDLIP of £0.6m, LCITP funding of £4.1m and UKG Levelling up funding of £16.4m.

Revenue

There is also a revenue funding requirement of £11m in relation to industrial unit site acquisition; while there is a projected revenue stream of £0.5m per annum plus inflation for rental of commercial units.

Funding Strategy

A funding strategy was prepared with partners. To address the Phase 1 funding gap, it is the intention to seek Scottish Government support in co-ordinating applications to available funding. This will provide the funding certainty required to take forward a first phase of regeneration with a private sector partner. A workshop is planned in April 2022 to begin this process.

Risk Strategy

A risk management process is in place, including risk register and mitigation plans. A key mitigation approach is the development of a phased approach to delivery and gateways built into the stage 3 process; to check viability and delivery of the first phase of regeneration.

Overall accountability sits with the Edinburgh Waterfront Programme Board, with regular reporting to elected members through an Edinburgh Waterfront All Party Oversight Group.

Monitoring and Evaluation

A benefits realisation strategy has been developed to create a framework for monitoring and evaluation of benefits as each phase is delivered.

Key Good Practise Themes

Granton Waterfront has been in development since 2018, with significant progress in that time. Some good practice areas worth highlighting is:

- The governance model, with CEO commitment
- The harnessing of strategic partnerships, where a shared vision has created both early action investments, but also supplementary strategies for learning and culture, that are supporting the wider regeneration ambitions
- The responsive approach to funding and market challenges, which has established a phased investment model that seeks to create ongoing value whilst leveraging private sector investment
- A dedicated project team tasked with day-to-day delivery of early actions and programme development

Key Themes: Collaboration, Finance, Governance, Risk Management

Gap Analysis

The gap analysis identified a well-developed programme, which has gone through several key stages, evolving in response to data analysis and market opportunities. As such there are few areas where further development is not addressed or planned. Consideration of additional development is primarily suggested in the benefits realisation activities: establishing clear measures of success which reflect the four strategic objectives for the project.

Alongside this, a monitoring and evaluation system should be considered that can support understanding the impact of the programme over time; and what the key contributors to that success were.

Key Themes: Monitoring and Evaluation; Investment Prioritisation

4.0 Case Studies (Continued)

Next Steps

The immediate next steps of the programme are to:

- Deliver early action projects over the next 5 years, including those linked to the Culture and Learning Strategies
- Deliver on pre-development activities
- Secure a development partner
- Develop the Full Business Case for Phase 1 of the four-phase investment programme
- Complete a Full Business Case for a low carbon heating network solution
- Access and co-ordinate available public sector funding to leverage in private sector investment

For Further Information

<https://www.edinburgh.gov.uk/homepage/10492/granton-waterfront-regeneration> Contact: granton.waterfront@edinburgh.gov.uk

5.0 Infrastructure Commission for Scotland

As part of activity scope and given the focus of Place in the creation of future developments to provide identity and facilitate, the place recommendations from the ICS Delivery Findings Report Phase 2, were presented and tested at each workshop to gain an understanding of their relevance, or otherwise, to NPF4. These are listed in Table 1 below. There was seen to be significant cross-over with the good practice themes and equally the areas identified by stakeholders as benefiting from a different approach. The table notes the alignment with some of the key themes:

Table 1: ICS Place Recommendations

	ICS Place Recommendations⁹	Support from Research	Good Practice Themes
ICS3	Scottish Government should enshrine the use of Place Principle within planning practice... through guidance, legislation or regulations as appropriate.	Positive initiative to ensure consideration from a place perspective embodies as a statutory requirement through design and delivery. The Place Principle has been embedded throughout the draft NPF4 and should continue to be applied in the Delivery Programme for the benefit of the community.	Design & Sustainability
ICS4	<p>Establish a cross-portfolio, and robust evidence-based, land use appraisal and prioritisation approach... which:</p> <ul style="list-style-type: none"> vertically aligns national, regional, and local needs. This involves co-produced industrial, settlement (including housing) and labour & skill strategies for each spatial level, which manage the difficult trade-offs maximise[s] the potential of an inclusive net zero carbon Scotland. Consider[s] the fullest interpretation of an inclusive net zero carbon economy... ..including spatial equity 	Essential database connecting all policies with 'flow-down' provisions at all levels; clarity provided in relation to consistency of targets and approach; prioritisation at strategic level, assessment of need translated to implementation plans; culture of no surprises in respect of land conditions; plan to manage risk through evidence and market testing.	Investment Prioritisation Finance

⁹ The full text of the recommendations can be found at the Infrastructure Commission for Scotland Delivery Findings Report - <https://infrastructurecommission.scot/page/delivery-findings-report>

5.0
Infrastructure Commission for Scotland (Continued)

	ICS Place Recommendations ⁹	Support from Research	Good Practice Themes
	<ul style="list-style-type: none"> • Support[s] a working agreement on land use priorities, including vacant and derelict land sites • Facilitate[s] market certainty to unlock significant sites, with coordination and clarity of the funding, financing, and delivery of enabling infrastructure, [which], • [Creates] a cohesive approach to planning obligations, to overcome issues of first-mover risk, transparency around enabling infrastructure and other disincentives to investment. 		
ICS5	<p>A “one public sector” outcome-based approach should be developed for our places...</p> <ul style="list-style-type: none"> • This would build on changes within the Planning Scotland Act (2019), establishing a clear duty to co-produce and co-deliver existing and proposed spatial plans and includes the necessary shared accountability measures. • How this effectively complements and learns from Community Planning Partnerships, Local Area Improvement Plans, Locality Plans and Local Place Plans should be reviewed, to make as efficient and streamlined as possible, while ensuring collaboration becomes a required practice. 	<p>This builds on the Place Principle as noted above and planning reform is putting a place-based approach at the heart of the new system and strengthening alignment with wider community led planning.</p> <p>Continued implementation of reforms would address inconsistencies between Local Authorities; removal of fixed borders; seamless transition within spaces; synergy from collaborative working and thinking, enables policy alignment and removal of barriers to conflict in relationships and delivery.</p>	Delivery Mechanisms

	ICS Place Recommendations ⁹	Support from Research	Good Practice Themes
ICS6	Co-ordinate[d] national upfront utility investment via changes to guidance, legislation, or regulation.	Positively reflected in theory, with main practice concerns around risk, timing, cost and practicality of implementation. Infrastructure Delivery Group a useful forum for bringing together utility providers alongside LA's and Developers.	Governance
ICS7	<p>Establish a digital data co-ordination, standards, and facilitation role... to support the efficient and innovative development and use of data for the infrastructure sector.</p> <ul style="list-style-type: none"> • This should include a review of existing data development and management roles, to ensure the competency is located and resourced in the most efficient way. • The function should support and drive the development of activities such as digital twins, where the sharing of asset data information facilitates better use of existing assets and informs future investments; and • Identify skill and training requirements and, with partners, establish an effective strategic response. 	Improves consistency throughout Scotland on approach; place requirements embedded in design from inception; new way of thinking; development of asset registers positive, assuming resources available; benefits recognised of lessons learned, information exchange and connection of place nodes.	Delivery Mechanisms

5.0 Infrastructure Commission for Scotland (Continued)

	ICS Place Recommendations ⁹	Support from Research	Good Practice Themes
ICS8	A centrally held data resource is developed... to provide open-source data that will inform place need and demand, including effective asset development, refurbishment, and use, for an inclusive net zero carbon economy.	Positive initiative, digital retention and sharing of information and ideas. Lack of information available on existing assets challenging. Digital Transformation of the Planning System ongoing.	Delivery Mechanisms
ICS9	: ...further develop and harness the essential skills to develop and improve our places. This should include [a] co-ordinated skill resource for the prioritisation, planning and delivery of infrastructure, which is available to all local authority stakeholders, across spatial levels.	Up-skilling and out-sourcing if appropriate to achieve positive outcomes. Centralisation or sharing of resources and experiences being place focused and driven	Collaboration

6.0 Transition Approach

With the introduction of the new development plan system through the 2019 Act, Scottish Government have advised there will be a period of transition as plans prepared under the previous system are completed and adopted, but also as previously adopted LDP's are replaced by new style plans.

Further information on the new development planning system and transitional arrangements can be found at:
<https://www.transformingplanning.scot/planning-reform/work-packages/development-planning/>

7.0 Conclusion

We all know what good practice delivery looks like, with objectives met and impacts demonstrated, however for several reasons there are times where we don't deliver well. While this can lead to a project that still meets some of its objectives, it can also lead to weak decisions, poor places and even issues that need resolved later. This report has revisited what the key components are that together support effective delivery. While recognisable and perhaps even obvious, it was our intention that by revisiting the literature we could draw these out in a clear format, to raise practise overall. Our engagement has reinforced the message from literature and added nuance which was welcome and developed the final output.

The case studies have used the key themes and some simple templates to demonstrate how an audit of activity can help highlight areas for improvement, while celebrating those areas of strength. It is intended that at whatever stage of development, both the National Developments and other infrastructure projects, could use a similar approach to establish and deliver well on their objectives.

This report is intended to feed into the wider activities to prepare the NPF4 Delivery Programme. There is more to be done. SFT welcome the commitment to a Delivery Programme and will continue to support efforts to make Scotland's infrastructure and its development world class.

Appendix 1: Stakeholder List

Aberdeen City Council
Aberdeenshire Council
Arcadis
Architecture & Design Scotland
CaCHE Housing & Place Delivery Forum
Clyde Gateway
Clyde Mission
Crown Estate Scotland
Dumfries & Galloway Council
Edinburgh & Southeast Scotland
Regional Economic Partnership
Glasgow City Region Regional Economic
Partnership
Green Action Trust
Heads of Planning Scotland
Highland Council, The
Historic Environment Scotland
Homes for Scotland
Hub West Scotland
Jacobs
Key Agencies Group
Lar Housing
Marine Scotland
Miller Homes
NatureScot
NESTRANS
Openreach
Paths for All
Persimmon
Planning Aid Scotland
Rettie
Ryden
Scottish Enterprise
Scottish Land Commission
Scottish Renewables
Scottish Water
SEPA
Scottish Government
SGN
SNIFFER / Climate Ready Clyde
Sustrans
Turner and Townsend
Zero Waste Scotland

Appendix 2: ND Case Study Selection Process

Following discussion and agreement with the Scottish Government, a reduced number of National Developments were selected from the proposed eighteen identified within draft NPF4, to create a short list to potentially participate in this study. Each of the National Development project leads identified in the short list were approached and provided with a brief presentation on the scope of the study, programme, objectives and anticipated outcomes.

The National Development leads within this short list were requested to confirm their interest to participate within the tight deadline and scope and taking into consideration their resource commitment and availability, project information availability and project status.

Positive responses were received from the following National Developments and initial workshops convened to provide a more detailed presentation on the output themes from the literature review process: -

- ND4: Urban Sustainable, Blue and Green Drainage Solutions (Metropolitan Glasgow Strategic Drainage Partnership only)
- ND7: Island Hub for Net Zero
- ND14: Clyde Mission
- ND17: Edinburgh Waterfront

Following an introductory workshop, often with extended project stakeholders, an audit of key documentation was undertaken, to determine how the NDs have considered good practice approaches to delivery, drawn from the literature review. A template was prepared to consistently undertake this review and is included at Appendix 3. This was structured around: context; gap analysis and key next steps. Intended as a snapshot in time, the project leads identified the key documentation for our review.

Documentation varied across the NDS depending on their stage of development and included business cases, heads of terms, minutes of meetings, and website information.

Appendix 3: Data Capture Template & Methodology

Data Capture Template

The questions posed in the audit template for capturing data is intended as a guide, in reflecting on whether you have fully captured all elements of delivery good practice.

1.0 Context

1.1 Project Summary

Outline the project, scene setting, key next steps

1.2 Spatial Context

Location of project

Where does it sit locally, regionally and nationally if appropriate?

Is it part of a larger delivery programme etc?

Context of interdependent and interfacing projects considered

1.3 Policy Context

Identification of appropriate relevant legislation. Policies and advice notices with which the project requires to comply

1.4 Gap Analysis

Gaps identified through mapping of this section

1.5 Next Priority Steps

How will you move the project forward to finalise activities within this section?

Summary of key actions required as checklist to create best practice

2.0 Key Objectives, Outcomes & Measures

2.1 Need Analysis

Key strategic case including:

- Importance of project at local, regional and national levels? – what is best fit?

- Why is the project required?
- What is driving the requirement?
- Baseline requirement and validate through research

2.2 Key Objectives, Outcomes & Measures

What is the project seeking to achieve?

Are there clear, defined, and realistic objectives and anticipated outcomes?

Is there continual reference back to address the need?

How is success measured when you achieve initial needs, objectives?

Consider link to the monitoring and evaluation section

2.3 Design Priorities

What are the key principles of design which relate to the needs assessment?

Consider place principle, infrastructure first, IIP Hierarchy and wider sustainability requirements

Identification of targets

Consider investment hierarchy

Consider statutory requirements

2.4 Key Interdependencies

Think out-with the project boundary, to support good practice

What projects have interdependencies or interfaces which influence or impact delivery?

2.5 Gap Analysis

Gaps identified through mapping of this section

2.6 Next Priority Steps

How will you move the project forward to finalise activities within this section?

Summary of key actions required as checklist to create best practice

Appendix 3 Data Capture Template & Methodology (Continued)

3.0 Governance & Stakeholders

3.1 Key Stakeholders & Roles

Have you identified key stakeholders and developed a stakeholder strategy and related management plan?

Have you identified roles and responsibilities?

3.2 Governance Structures

Have you formal project structures, with a clear accountability structure?

Have you considered roles, resource requirements and the skill base?

How will governance structure be communicated through the project?

3.3 Market Clarity

Where does the project sit relative to market position and conditions?

3.4 Risk Management

Have you developed risk management protocols; collectively agreed risk categories; developed a template for management?

How has risk been assessed with partners?

Is there an identified risk manager?

Does your risk process include regular review and updates?

3.5 Gap Analysis

Gaps identified through mapping of this section

3.6 Next Priority Steps

How will you move the project forward to finalise activities within this section?

Summary of key actions required as checklist to create best practice

4.0 Delivery Programme

4.1 Key Investments Planned & Delivery Approach

What investments are planned and how are you planning to deliver them?

Did you undertake a review of approaches before opting for the chosen approach?

How does your chosen approach reflect key risks and overarching objectives?

4.2 Key Investments/Progress to Date

What works are completed and how do they benefit the project?

Is progress in line with outline programme or is a review required?

4.3 Costs Including Whole Life

Detail costs and identify whether whole life costs have been considered

Note whether there is a cashflow available

4.4 Timeframe / Prioritisation

What are the timeframes for delivery of the programme; are there any phasings; and how did you come to this programme?

4.5 Risks & Mitigation

Have risks on interdependent projects been assessed?

Will funding availability impact programme?

Realistic timeframes included for approvals, third party agreements etc

4.6 Gap Analysis

Gaps identified through mapping of this section

4.7 Next Priority Steps

How will you move the project forward to finalise activities within this section?

Summary of key actions required as checklist to create best practice

5.0 Funding & models

5.1 Funding Strategy

Has a funding strategy been developed, including a review of different models relative to the scope and programme?

Has there been a review of Impact on delivery from funding model agreed in terms of cashflow, third party payments etc?

5.2 Secured Funding / Approaches

What funding is in place and conditions required to satisfy funding agreements?

Are whole life costs known to match funding requirement?

5.3 Potential Funding / Approaches

What are the key avenues identified for funding?

Have you considered the potential of co-funding elements of the project with other stakeholders?

5.4 Gap Analysis

What gaps have been identified through mapping of this section?

5.5 Next Priority Steps

How will you move the project forward to finalise activities within this section?

Summary of key actions required as checklist to create best practice

6.0 Risk Management

6.1 Key Risks & Mitigation Measures

Has there been a risk workshop undertaken to develop a risk management strategy, including a process for capture, identification, assessment and ownership, considered together with mitigation measures?

Have factors both internal and external to the project been considered?

What is the risk and impact if the project does not proceed?

6.2 Gap Analysis

What gaps have been identified through mapping of this section?

6.3 Next Priority Steps

How will you move the project forward to finalise activities within this section?

Summary of key actions required as checklist to create best practice

Appendix 3 Data Capture Template & Methodology (Continued)

7.0 Monitoring & Evaluation

7.1 Framework, including Measures of Success

What monitoring and evaluation systems have been developed?

Does this cover the project delivery (construction) as well as whether you have met your objectives?

Have you considered the alignment with mission, vision, objectives, measures of outcomes and success?

Is there a process in place to enable continual re-assessment and flexibility as project transitions?

How are monitoring reports collated and shared for lessons learned improvement?

7.2 Benchmarking & Testing

Have you undertaken or planned any similar projects to benchmark against?

Have you considered how to share your experiences?

7.3 Refinement/programme

What do you have in place to review the monitoring and evaluation framework in an ongoing way, including for example gateway reviews?

7.4 Gap Analysis

What gaps have been identified through mapping of this section?

7.5 Next Priority Steps

How will you move the project forward to finalise activities within this section?

Summary of key actions required as checklist to create best practice

Methodology & Resource

Given the time commitment required to collate and synthesise information to complete the above, it is suggested a dedicated resource be identified, committing 50–75% of their time for a period of 2–3 weeks. This will include timeframes for project introduction, workshops, information gathering, review, completion of the data capture and formation of the Case Study.

It would be beneficial for the personnel selected to undertake the review having relevant experience in the delivery of infrastructure projects from inception to handover, and a familiarity of good practice principles and their application. They would also be comfortable in facilitating the stakeholder workshops, to capture and interrogate data.

Data Sources

In utilising the above, and in recognition of the various stages of the project lifecycle, sourcing and review of the following information proved useful. This should not be considered exhaustive:

Section Heading	Documents to Consider
Project Context	<ul style="list-style-type: none"> Mission Statement/Vision Project Brief Strategic Business Case Outline Business Case Full Business Case
Legal	<ul style="list-style-type: none"> Development Agreement Consortium Agreement Professional Appointment Memorandum of Understanding/Heads of Terms Building Contracts Warranties Third Party Agreements
Statutory Approvals	<ul style="list-style-type: none"> Planning Application/Consent and Conditions Building Control submissions and approvals Legal agreements to support Section 75 etc
Financial / Funding	<ul style="list-style-type: none"> Development Appraisal Funding Strategy Funding Agreement Conditions Precedent to Funding Agreement Cost Plan
Programme	<ul style="list-style-type: none"> Master Programme identifying key milestones Critical Path Interdependencies and Interface with other projects Approach to infrastructure first / key infrastructure
Procurement	<ul style="list-style-type: none"> Procurement Strategy Report Long Lead-in summary

Appendix 3 Data Capture Template & Methodology (Continued)

Section Heading	Documents to Consider
Design	Design review in line with RIBA plan of work Staged Design Reports Infrastructure First considerations/agreements Place Planning
Risk	Risk Management Plan Risk Register
General/Governance	Project Development Plan Communications Strategy Stakeholder Management Plan Meetings Schedule Minutes of Key Meetings Reports

Appendix 4

Case Study Template

Project	Narrative and project image
Spatial Context	Identification of location and setting
Project Vision/and Objectives	Mission – why is the project being taken forward
Current Status	Summary of key progress to date - establishment, set up, projects etc
Programme	High level summary on stage of development and key dates to be achieved
Policy Context	Reference to key, relevant policy documents which could also be links
Governance & Stakeholders	The governance structure
Funding	Approach to stakeholder consultation and management Reference to funding assessed, secured, required and any gaps
Costs	Indicative overall amounts to provide information on scale etc
Risk Strategy	Narrative on risks Procedures in place for management
Monitoring and Evaluation	Process and strategy in place to check back to objectives Current position
Key Good Practise Themes	Areas where good practise has been demonstrated Narrative and summary of Key Themes
Gap Analysis	Narrative noting the gap analysis completed
Next Steps	Identify next steps. Reference key themes for successful delivery of infrastructure delivery
For Further Information	Website and contact email where appropriate

Appendix 5 Funding & Financing

Introduction

Infrastructure projects are complex and interconnected. This also extends into the funding and financing of projects, as we seek to maximise opportunities to deliver on infrastructure priorities and optimise the funding available. This is however an often-changing environment, with new funds coming on board and others no longer available or being updated as their focus or scale develops. Scottish Government in their delivery programme highlights a number of government funds supporting policy delivery, including NPF4. Due to this changing nature of external funding, this section doesn't seek to set out all options in the market, instead focusing on approaches and related mechanisms available in both funding and finance, covering public and private sources.

In order to help frame this section we have used the following definitions to distinguish between funding and financing:

- Any asset ultimately has to be paid for (or **funded**) either as it is built or as it is used. Funding for infrastructure assets come either from public sector budgets, or from "customers" in the form of user/occupier/developer charges.
- If the asset is paid for as it is used, a form of **finance** (which comes with an expectation of repayment) can be raised to build the asset¹⁰. Financing can be either public sector borrowing or private debt/equity financing.

Public Funding Approach

Public funding can either be direct for assets owned or managed by the public sector; or used as leverage for private finance of infrastructure, then often owned by the private sector. Within this context a number of mechanisms have been developed, to support infrastructure investment.

Current approaches available to Scottish Government to fund and finance 'tax payer' funded infrastructure include:

1. **Issue of capital grants or capital from capital borrowing** – In the year 2022/23 the capital budget (excluding Financial Transactions) is £5.3bn. Historically, a large proportion of this budget (c90% in 20/21) is spent on infrastructure. In addition to the capital block grant, the Scottish Government can increase capital expenditure through borrowing up to £450m per year up to a maximum limit of £3bn. Capital borrowing places a future resource budget constraint on the Scottish Government to pay back.
2. **Outcomes funding mechanisms** where Scottish Government releases annual revenue funding once the assets are built and specified outcomes such as economic indicators, emissions reductions, good maintenance/condition regimes are achieved. These mechanisms are typically used for local government delivered projects (although there are examples where private sector ownership underpins the approach e.g., the Stornoway Deep Water Terminal), where capital is not available. Local government invests (often using its borrowing powers) to enable the outcomes. There is some level of risk attached to this model, as it relies on meeting the outcomes agreed to upfront (and not the supporting of any upfront debt drawn). Models include:
 - a. **Growth Accelerator** – The key objective of the Growth Accelerator funding mechanism is the delivery of public sector enabling infrastructure which stimulates private sector investment and the wider economy. The model establishes a payment-by-outcomes approach based on

¹⁰ An exception is an asset financed using corporate or national debt where the debt stock is increased in perpetuity to pay for the asset. As this form of borrowing is not available to Scottish Government it is not considered any further

achieving key measures relating to economic, financial and social impacts which are determined on a project-by-project basis. Currently there are three active GA projects – St James Quarter in Edinburgh, Dundee Waterfront and Stornoway Deep Water Terminal.

- b. **Green Growth Accelerator (GGA)** – Focuses on infrastructure projects to support Scotland’s transition to an inclusive, net-zero emissions economy. A call for GGA pathfinder projects was opened in early June 2021 and closed on 1 September 2021. A total of 17 proposals were received from 10 Local Authorities. The 5 selected pathfinders will work collaboratively with SG officials and Scottish Futures Trust towards developing individual business cases for approval by Ministers. These business cases will come forward through 2022 and the pathfinders will represent a first tranche of projects worth around £40m of capital investment. The pathfinders will inform the development of a future roll out of GGA in 2022, aimed at reaching the full £200m ambition of the programme.
- c. **Learning Estate Investment Programme** – an outcomes-based approach to deliver high quality, well maintained, digitally-enabled learning environments that achieve ambitious energy targets. The £2 billion programme comprises £1 billion from the Scottish Government with the rest from Local Authorities. The funding approach uses Council’s existing capital resources or borrowing through the Public Works Loans Board (PWLB). It will also see the Scottish Government funding ongoing maintenance to ensure that the

learning estate is properly maintained to serve learners and the community over the long term. In September 2019, the first phase of 11 new schools were announced as part of the nationwide investment programme. In December 2020, 25 new schools and campuses to be constructed or refurbished as part of Phase 2 were announced. A further Phase 3 was announced in December 2021, for project approval before the end of 2022.

3. **Tax Incremental Funding** – The model sees local authorities borrow up front to pay for enabling infrastructure that will catalyse private sector development and unlock additional future business rates – with local authorities granted the right to retain incremental business rates directly. Those business rates are then ring-fenced over a 25-year period and used to repay the initial borrowing. Local authorities therefore accept the risk of private sector development occurring. Current legislation limits the number of TIF pilot schemes to 6 in total. Falkirk TIF has invested the most in enabling infrastructure and is the most advanced TIF deployment to date.
4. **Mutual Investment Model** – this is a profit-sharing (between public and private sector) form of PPP revenue funding. Under MIM, a delivery company is established to undertake specific infrastructure investment. The delivery company finances infrastructure investment through a mixture of bank debt, bonds and risk capital from the public and private sector. To pay for the cost of the infrastructure investment, the delivery company receives a unitary charge from the Scottish Government (typically over a 25-year period). Under the MIM model, profits arising from the delivery of infrastructure are shared between the public and private sector investors.

Appendix 5 Funding & Finance (Continued)

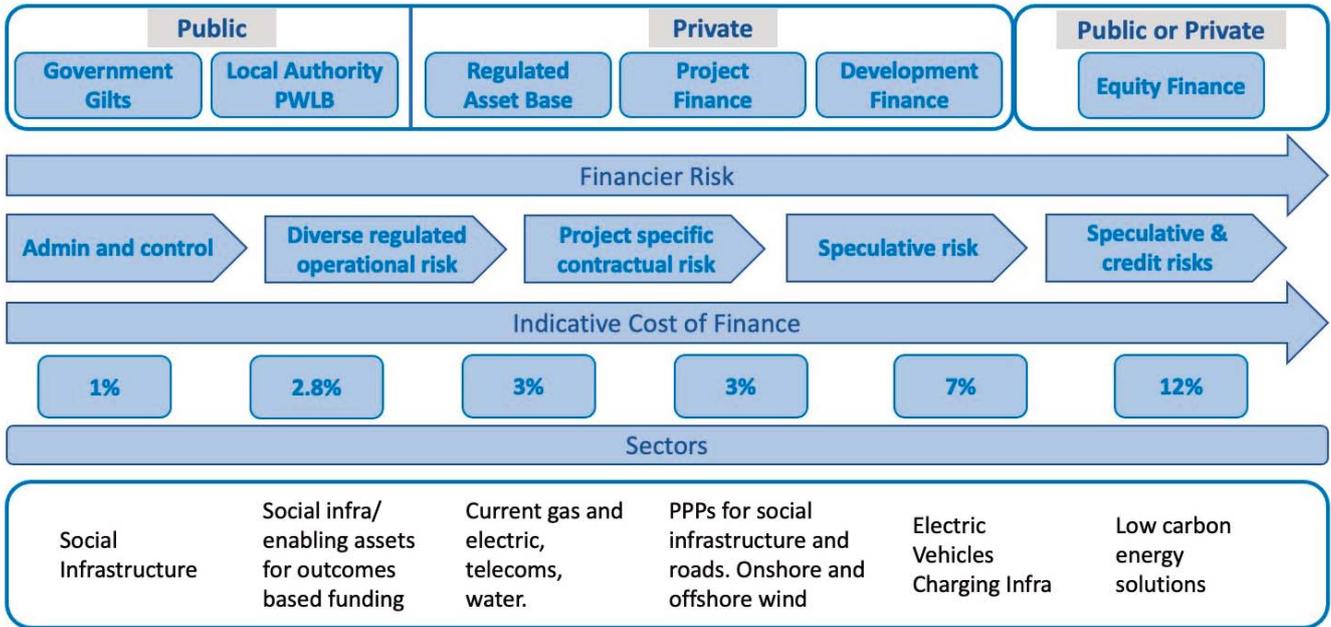
5. **Loans and Equity** – This is usually provided via Financial Transactions provided by UK Government which can be used by Scottish Government to make investments in private sector entities. These need to be repaid to Scottish Government for onward repayment to HMT.
6. **Guarantees** – these can be provided by Scottish Government or UK Government whereby an agreement is made to underpin the level of income received and hence provide protection to the project sponsor(s) and / or key parties to the transaction. An innovative example of this in Scotland would be the Winchburgh Developments site in West Lothian where a tri-partite risk sharing agreement between Scottish Government, West Lothian Council and Winchburgh Development Ltd unlocked an initial 3,400 homes and further 15,000 across the authority area¹¹. In this case SG was guarantor of last resort providing assurance for the local authority to borrow necessary finance for the social infrastructure required. There is potential for this structure to be replicated in different contexts.

Public and Private Finance Approaches

Figure 1 below illustrates the spectrum of options across public and private investment and the sectors they often support. As can be seen this is not a strict public versus private approach, but often a spectrum of options with ownership and delivery part of the decision-making when considering funding and finance. As you move from left to right the risk increases, whether due to the level of asset control, public investment or return certainty. This sees therefore a resultant increase in the cost of finance. Whilst most government finance is towards the low cost end when provided to public sector entities, the public sector may also provide development or equity finance to private sector institutions or projects through bodies such as Scottish Enterprise and Scottish National Investment Bank, and now the UK Infrastructure Bank with the aim of leveraging or crowding in other private finance. Creating the conditions to lower the cost of finance is a key factor in delivering best value from available budgets, however, another fundamental consideration that requires constant re-evaluation is whether the assets should be funded by taxpayers or consumers in the first place, and how this may then link to subsidy rules and the prevailing cost of finance.

¹¹ https://outcomes.scottishfuturestrust.org.uk/wp-content/uploads/2020/10/03_Winchburgh_NEW.pdf

Figure 1: Finance Sources



The following tables highlights a number of funding and finance examples (further building upon elements above).

Appendix 5 Funding & Finance (Continued)

Table 1: Funding & Finance Examples

Source	Funding/ Financing Source	Commentary
SG DIRECT		
CDEL	Funding	CDEL should be prioritised for taxpayer funded infrastructure noting potential value to pump prime to attract investment.
Capital borrowing	Funding	Capital borrowing places a future resource budget cost on the Scottish Government through interest repayments. Capital borrowing should be prioritised for taxpayer funded infrastructure.
Fiscal levers	Funding	For completeness, alongside these financial levers sit a wider range of fiscal levers such as tax relief or direct grant support to private companies or individuals connected to infrastructure investment where the opportunity costs will be dependent on the design and application of the lever.
Scottish Guarantees	Guarantee to provide security over financial loans	Scottish Government can issue its own guarantees similar to UKG. Any guarantee over £1m must be approved by Finance Committee. Cost of call on guarantee is met by SG RDEL therefore risk and potential call.
SG using UK FT's		
Financial Transactions (FTs)	Public finance	Can only be used for private sector loans or equity investments. SG is allocated FT limit by HMT. SG must repay HMT (at 80% to date), and any bad debts beyond that need to be met from SG CDEL.
Scottish National Investment Bank ("the Bank")	Primarily public equity finance	The Bank provides investment to the private sector and is funded through FTs and therefore it is assumed to have a similar opportunity cost of capital to FTs. Not targeted at infrastructure per se but could support companies in the infrastructure market where the activity relates to the Bank's missions. Parts of the enterprise bodies operate in a similar way.

Source	Funding/ Financing Source	Commentary
UKG Reserved		
UK Government Mechanisms	Primarily public finance but could include guarantees	There are potential mechanisms that are developed and introduced by UKG that could be applicable to infrastructure investment in Scotland. Examples include the Contract for Differences regime that has been utilised in the energy sector.
Regulated Asset Base	Private - Regulated Asset Base	Private companies (utilities sector) own, invest in and operate infra assets and charges customers and/or receives subsidy. Economic regulator provides efficiency incentives, caps prices, revenue or investment return. It assumed no direct SG risk therefore low cost of capital, however any decision for further Scottish infrastructure investment requirement would indicate need for further consideration of the RAB approach.
UK Infrastructure Bank (including UK Guarantee Scheme, loans and equity)	Primarily public project finance and equity	Where financing for infrastructure is directly available to a private entity on a commercial basis, it is assumed no SG risk and therefore lowest opportunity cost of capital. Limited information available on the UKIB. The first Strategic Plan is anticipated in June 2022.
Private Finance		
Commercial bank finance	Primarily project finance and equity	Where financing is directly available to a private entity investing in infrastructure on a commercial basis. It is assumed no SG risk and therefore lowest opportunity cost of capital.

Investment Summary

Leveraging private funding through public finance requires a) the structuring of infrastructure to make it attractive commercially; b) the right regulatory and policy environment to encourage demand which makes the investment viable; and c) existing or innovative funding models which apportion risks appropriately. As seen in figure 1, private finance can take a number of forms and can be invested alongside public finance. Both Scottish and UK governments have sought to support more investable products through a range of resources, including establishing and funding development banks, which focus on policy priorities. A number of case studies are provided to help illuminate this short paper at Annex 1.

Appendix 5 Funding & Finance (Continued)

Funding & Finance Annex 1: Case Studies

PWLB & Private Finance

Despite the challenges of securing private investment, Aberdeen City Council recently secured BP as their Joint Venture partner to deliver on the Aberdeen Hydrogen Hub¹².

Fusion Assets¹³, is a development company owned by North Lanarkshire Council which was seed funded by the closure of Boots' factory in Airdrie. Using this and other later funds, Fusion has established formal Joint Ventures with the private sector, to successfully bring a range of land opportunities to market.

SG Direct, PWLB & Private Finance

Midlothian Energy is a 50:50 joint venture company between Midlothian Council and Vattenfall Heat UK. The first project to be undertaken by the JV¹⁴ is a connection from the Millerhill energy from waste facility (operated by FCC on behalf of City of Edinburgh and Midlothian Councils under a PPP contract) to the new town of Shawfair. This involves a c.£50m investment, supported by a £7.3m grant from Scottish Government's own Carbon Infrastructure Transition Programme (LCITP). LCITP was established to create the conditions to attract commercial investment in innovative and replicable low-carbon infrastructure. The remainder is being met by connection charges from developers and 50/50 funding contributions from the JV partners being Council borrowing, and balance sheet funding from Vattenfall.

SG using UK FT's

Co-investment and lending is available via the Scottish National Investment Bank (SNIB), which

has the broad missions of Net Zero, Places and People. While established by Scottish Government, it is a commercial institution with commercial rates of debt and equity (no grants). As an example of the benefits of SNIB however, company investments in Nova and Sunamp were done on comparable commercial rates to the private banking sector, but with the Bank accepting a higher rate of risk / return and the company therefore benefiting from large scale investment at an earlier stage than normal .

UKG Reserved

Another model example is the UK Infrastructure Bank, which newly established anticipates to lend to private sector and local government. They have two strategic objectives: to help tackle climate change; and to support regional and local economic growth focusing on connectivity, new jobs and productivity.

SG Direct - Guarantees

It was in 2011 when SFT launched the National Housing Trust (NHT) programme with Scottish Government to support Scotland's local authorities increase the supply of mid-market rent homes to meet rapidly growing demand. The premise behind the NHT programme was that housing developers would be appointed to build a specified number of homes for affordable rent on land they already owned. Once complete, a local company in the form of a limited liability partnership (an LLP) would be established comprising the developer, the participating local authority and SFT. The partnership would then buy the homes (drawing upon debt provided by the relevant local authority, which in turn benefitted from a guarantee from Scottish government and private sector equity) and let them to tenants at affordable rent for at least five and up to ten years, after which the properties would be sold. In total, 1,731 NHT homes were delivered.

12 <https://investaberdeen.co.uk/success-stories/latest-news/bp-approved-to-deliver-the-aberdeen-hydrogen-hub>

13 <https://www.fusionassets.co.uk/>

14 <https://group.vattenfall.com/uk/newsroom/pressreleases/2020/midlothian-council-and-vattenfall-launch-new-energy-services-company>

SG Direct & PWLB – TIF

The Scottish Futures Trust (SFT) manages and leads on the Tax Incremental Financing (TIF) programme on behalf of Scottish Government as a way of securing additional infrastructure investment into areas to unlock regeneration and inclusive economic growth. TIF seeks to capture locally generated, incremental public sector revenues (e.g. business rates) that wouldn't have arisen were it not for investment in the delivery of "enabling" public sector infrastructure. The use of TIF is normally predicated on a 'but for' test i.e. that but for TIF, the anticipated outcomes from a regeneration and economic perspective would not occur or not occur in the time frames which TIF would enable. A TIF project must therefore demonstrate that the enabling infrastructure will generate additional public sector revenues to repay the financing requirements of the enabling infrastructure. One such project is the Falkirk TIF scheme. It was established in 2012 and has continued to be a key delivery route for capital investment in the region. It is now aligning with the Falkirk & Grangemouth Growth Deal and Falkirk Council's own capital investment programme.

SG Direct - Growth Accelerator / Outcome-Based Funding

Following the success of The City of Edinburgh Council adopting the Scottish Government / Scottish Futures Trust's (SFT) Growth Accelerator to unlock £850m of private sector international investment into the heart of the city, Dundee City Council chose to use the same funding approach to secure economic growth. Dundee City Council has used the Growth Accelerator to fund the development and delivery of the following projects along the Central Waterfront area:

- The V&A museum
- The redevelopment of Dundee railway station
- The planned installation of a 5G network / digital infrastructure
- Provision of commercial Grade A office space and
- Improvements across the wider public realm

SG Direct & Private Finance – Glenrothes Heat Network

Glenrothes Energy Network was developed through a public private partnership between Fife Council and RWE. It was delivered by Vital Energi¹⁵, and uses excess heat from the RWE biomass plant, to support a district heating network. Capex was c.£24, supported by a £8.6m from Scottish Government's Low Carbon Infrastructure Transition Programme. The remainder of the funding came from RWE (in respect of the energy centre – funded from RWE capital) and Fife Council (network/connections to its buildings).

Appendix 6

Key Delivery Principles

Governance	<p>Principle: Establish a strong, responsive governance structure that flexibly responds to project development needs; creating a culture of trust, openness, and transparency; and supporting a focus on skills, to ensure they are at the right place at the right time.</p> <p>Tools: Project charter, project development plan, peer review</p>
Collaboration	<p>Principle: Work together, fostering positive relationships to agree and meet collective ambitions and to access the best skills that deliver on those ambitions; engaging early and often with key stakeholders to understand their needs.</p> <p>Tools: Stakeholder mapping, engagement strategy, and stakeholder management plan</p>
Delivery Mechanisms	<p>Principle: Create a supportive suite of documents to develop, implement and oversee activity; effectively use the tools at your disposal, including statutory planning tools; and consider how the right partnership or relationship can support synergy in investment plans.</p> <p>Tools: Standardised templates, implementation, and review tools, possibly retained on a digital platform; with supporting processes that address key project activities.</p>
Investment Prioritisation	<p>Principle: Understand the user need and establish the business case to deliver that need; including testing the investment hierarchy model where an asset is proposed, within wider asset management ambitions.</p> <p>Tools: Development strategy, Investment Appraisal, Business Cases (Strategic, Outline, Full), asset register, database</p>
Design and Sustainability	<p>Principle: Use the Place Principle to facilitate a sustainable and design-led approach which meets the needs of communities while considering carbon and cost impacts over time; is established through an Infrastructure First approach; and considers the interface with Blue & Green Infrastructure.</p> <p>Tools: Place Principle, Place Guide and Design Guidelines</p>

Finance/Funding	Principle: Take a whole life approach to capital and revenue costs; and develop an implementation plan that best unlocks wider investment and impacts; targets funding and funding models that best support your aims; and gives market clarity through a transparent approach to developer contributions. Tools: Detailed cost plan, funding strategy, implementation plan, developer contribution strategy
Risk Management	Principle: Establish a rigorous risk management approach which supports objectives, while supporting market certainty through transparent processes and expectations, including clarity on risk allocation; with regular review milestones for ongoing refinement. Tools: Risk management plan and process
Monitoring and Evaluation	Principle: Establish an early monitoring and evaluation framework, with a clear baseline, that both supports clarity on the appropriateness of delivery activities to meet goals, and post-delivery reflection on whether those goals were met and why, to support ongoing Lessons Learned and future project refinement. Tools: SFT Briefing and Evaluation Framework, Gateway review process, Project Development Plan.

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The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry, no matter how small, should be recorded to ensure the integrity of the financial data. This includes not only sales and purchases but also expenses, income, and transfers between accounts. The document provides a detailed list of items that should be tracked, such as bank statements, credit card receipts, and invoices. It also outlines the best practices for organizing these records, such as using a consistent naming convention and backing up data regularly.

The second part of the document focuses on the process of reconciling accounts. It explains how to compare the internal records with the bank statements to identify any discrepancies. Common reasons for these differences include timing issues, bank errors, or unrecorded transactions. The document provides a step-by-step guide to performing a reconciliation, including how to use spreadsheets or accounting software to facilitate the process. It also offers tips for resolving any identified errors and ensuring that the accounts are balanced at the end of each period.

The final part of the document discusses the importance of regular reviews and audits. It suggests that businesses should conduct periodic reviews of their financial records to identify trends, assess performance, and detect any potential issues. This could involve comparing current data to historical data or benchmarking against industry standards. The document also highlights the value of professional audits, particularly for larger businesses, to provide an independent assessment of the financial statements and ensure compliance with applicable regulations.

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