

Glasgow - City Deal Drainage Retrofit Programme Objectives and Lessons Learnt

David Hay
Glasgow City Council

11 October 2023

Overview

- Challenges & Opportunities
- Metropolitan Glasgow Strategic Drainage Partnership
- MGSDP City Deal Business Case
- Multi-functional benefits
- Lessons Learnt – Community Engagement
- Lessons Learnt – Challenges of the Urban Environment
- Lessons Learnt – Risk Management
- Lessons Learnt – Partnership Working
- Lessons Learnt – Responding to Challenges
- Lessons Learnt – Project Life Cycle
- Funders & Partners
- Concluding Remarks



View across Glasgow from Hamiltonhill Claypits

Challenges

- Victorian drainage infrastructure
- Loss & culverting of watercourses
- Climate change increasing flood risk
- Drainage constraints to development

Opportunities

- Established partner relationships
- Local Flood Risk Management Plan
- Increased interest in blue-green infrastructure
- Glasgow City Region City Deal



Hardstanding & Low
Quality Greenspace



Multi-Functional
Community Park

Queensland Gardens

Metropolitan Glasgow Strategic Drainage Partnership

The MGSDP Vision is...

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

The MGSDP Objectives are...

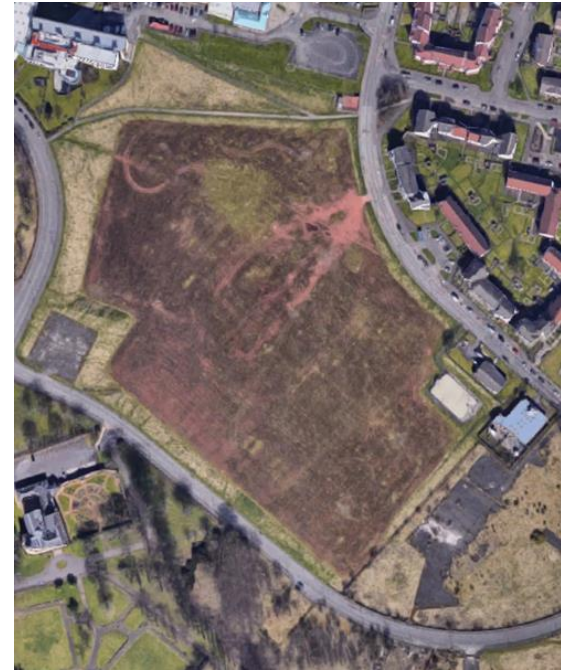
- Flood risk reduction
- River water quality improvement
- Enabling economic development
- Habitat improvement
- Integrated investment planning

The MGSDP Guiding Principles...

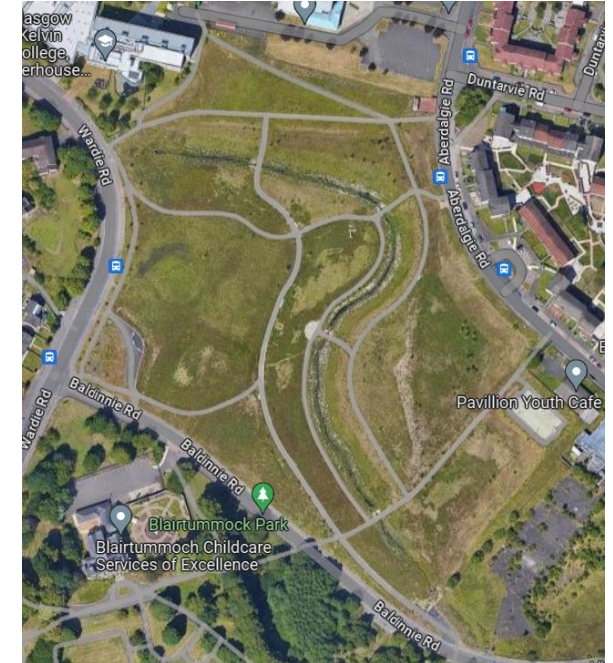


MGSDP City Deal Business Case

- Primary objectives were to create drainage capacity to support regeneration and reduce flood risk.
- Secondary objective was to enhance greenspaces through delivery of blue-green infrastructure.
- Secured £40m City Deal investment.
- Levered in an additional £7.5m funding excluding funding secured by partners.
- Business cases add greatest value if used as a project development tool.



Disused Blaes Pitches



Daylighted Whamflet Burn
& New Water Vole Habitat

Blairtummock Park

Multi-functional benefits

- Facilitate development through creating drainage capacity.
- Conveyance and storage of flood water.
- New habitat creation including introduction of surface water and wetland features.
- Enhanced places for communities to enjoy.
- Adaptation for climate change to respond to increased flooding and ecological emergency.



Kinfauns Dr Basin, Drumchapel SWMP

Lessons Learnt - Public engagement and consultation

- Identification of potential impacts as early as possible in the project development.
- Consider how the community uses and values the spaces where the project interventions may be set.
- Landscape changes including tree felling and the introduction of surface water to parks were most sensitive.
- Targeted consultation to engage with directly impacted stakeholders.



Daylighted Tollcross Burn, Sandyhills Park

Lessons Learnt – Challenges of the Urban Environment

- Building in a sufficient contingency budget to respond to the cost risks associated with contaminated soils and below ground utilities.
- Developing a cost effective strategy for investigating and managing below ground utilities.
- Reaching an amicable allocation of space for competing interests e.g. parking and raingardens.
- Recognising the length of time associated with securing access to land.



Croftfoot PS Amphitheatre, SE Glasgow SWMP

Lessons Learnt – Risk Management

- Seeing risk registers as a value adding project management tool and not an admin / box-ticking exercise.
- Communicating risk effectively through an open and mature dialogue.
- Optimising the allocation of risk within a construction contract.
- Risk needs to be allocated equitably between delivery partners / funders.



King's Park Flood Storage Basin, SE Glasgow SWMP

Lessons Learnt – Partnership Working

- Recognising the length of time taken to conclude a legal agreement with a partner / funder.
- Developing projects with multi-functional benefits facilitated partnership working.
- Investment in partner relationships helped to overcome project challenges.
- Seeking the alignment of funding and delivery timescales, facilitated by having shovel-ready projects.



Glasgow's Smart Canal – Hamiltonhill Link

Lessons Learnt – Responding to Challenges

- Keeping the Greater Easterhouse construction locations free of fossorial water voles.
- COVID-19 site shutdown ordered by the Scottish Government.
- Overcoming tender values exceeding budget through value engineering and phasing projects.
- Construction challenges including utilities and ground conditions.
- Maintaining momentum and building resilience.



SuDS Basin, Cranhill Park

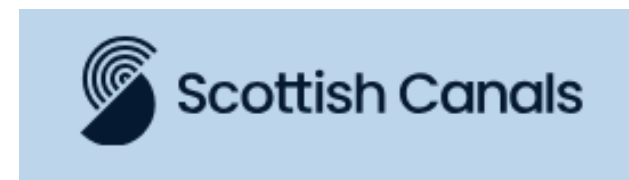
Lessons Learnt – Project Life Cycle

- The maintenance of the new blue-green infrastructure is key to the long-term success of the project.
- Involvement of operational maintenance staff during the development of the project and preparation of the construction specification can future maintenance challenges.
- Capital funding for construction is easier to secure than revenue funding for maintenance.
- By providing parks with added functionality helps to make the business case for greater funding for maintenance.



New Wetland, Drumchapel SWMP

Our Funders & Partners



Concluding Remarks

- Our funders have become partners with often more than a single project being delivered jointly.
- Proud of what the team has delivered and the difference we have made across multiple communities.
- Challenge is to maintain momentum and achieve the optimum balance between project development and implementation.
- Achieving the MGSDP Vision is a long-term project requiring significant investment.



Penilee Park (Phase 1)