



# The Metropolitan Glasgow Strategic Drainage Partnership

The Metropolitan Glasgow Strategic Drainage Partnership (MGSDP) is a collaborative venture between Glasgow City Council, the Scottish Environment Protection Agency (SEPA), Scottish Water, Scottish Enterprise, Clyde Gateway, South Lanarkshire Council, Scottish Canals and Renfrewshire Council. The MGSDP Vision is to transform how the city region thinks about and manages rainfall to end uncontrolled flooding and improve water quality. This vision will be realised through partnership working shaped by the MGSDP Guiding Principles.

## MGSDP retains status as National Development in National Planning Framework 3

The Metropolitan Glasgow Strategic Drainage Partnership (MGSDP) has retained its status as a national development in the third National Planning Framework (NPF3), which sets out the Scottish Government's strategic development priorities over the next 20 to 30 years. Further information on the Scottish Government's vision for planning in Scotland, including the launch of both NPF3 and the revised Scottish Planning Policy (SPP) is available [here](#).

NPF3 confirms the Government's support for 14 large-scale national developments.

Projects which are classified as national developments are regarded as essential to Scotland's strategic development and the MGSDP continues to be recognised as an exemplar of sustainable water management on a catchment scale, contributing to Scotland being 'a natural, resilient place'. Statutory development plans must have regard to the NPF, and Scottish Ministers expect planning decisions to support its delivery.

**Derek Mackay, Planning Minister, said:** "NPF3 confirms our support for 14 national developments that will drive economic growth, champion our most successful places, and support changes in areas where, in the past, there has been a legacy of decline".

"This strategic focus will support the regeneration and reindustrialisation of Scotland, as well as improving transport and connectivity links, and ensuring sustainable development through support for green networks and low carbon energy supply."

**Richard Brown, Chair of the MGSDP Board, said:** "The MGSDP is making good progress and is integral to implementing key strategic and local schemes but momentum must be maintained to continue to deliver the MGSDP 2060 Vision to transform how the city region thinks about and manages rainfall to end uncontrolled flooding and improve water quality. This will help to unlock potential development and regeneration, whilst also building greater resilience to long-term climate change.

"Retaining the MGSDP's status as a National Development in NPF3 will provide the profile and recognition to maintain momentum and political will to keep this as a high priority with key partners and stakeholders.

"The MGSDP is of more than regional significance. The MGSDP covers a significant portion of west central Scotland but should be viewed in the wider context of developing objectives, guiding principles, tools, studies, guidance, knowledge, implementing projects, partnership working and learning of solutions where the theory and methodology may be applied across all of Scotland – both urban and rural."

Mr Brown added: "Well designed green infrastructure can support regeneration efforts within our towns and cities, and improved attractiveness and environmental performance can act as a catalyst for economic investment. The MGSDP aim is to provide exemplar projects and collaborative ways of working that will continue to be a showcase for best practice design and implementation of surface water management and water sensitive urban design that can create links with industry peers and urban centres internationally.

"The sharing of projects and information will help to strengthen Scotland's links with the rest of the world and also contribute to the delivery of the Hydro Nation agenda."



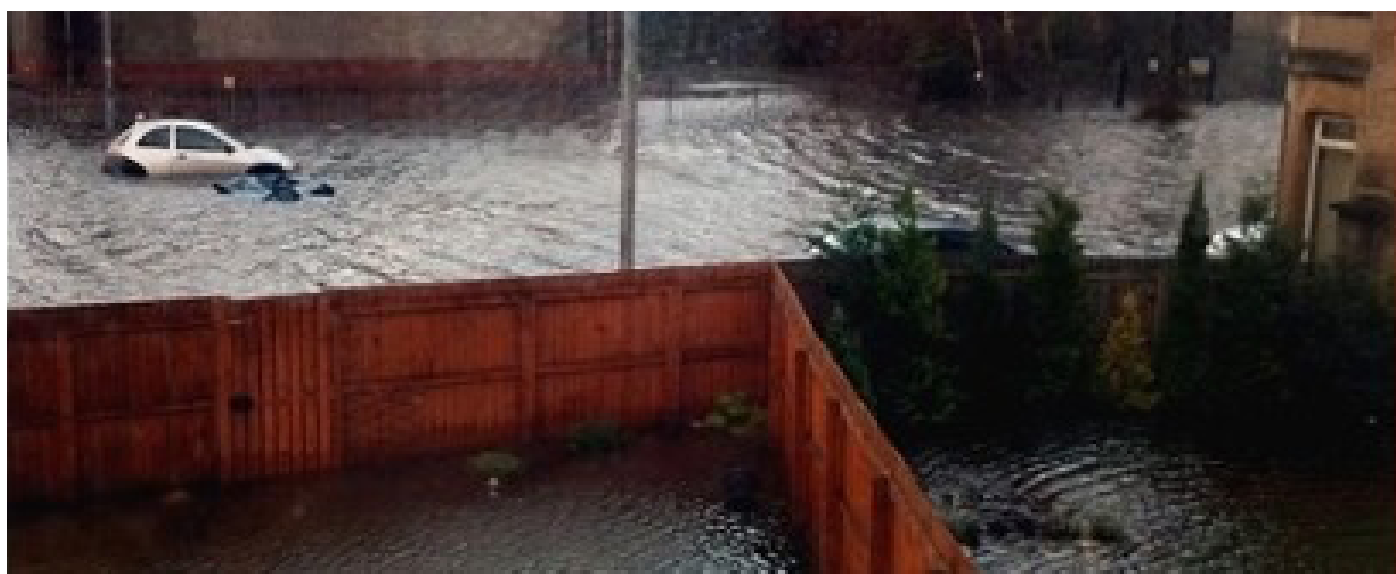
## Renfrewshire Council joins the MGSDP

The MGSDP is pleased to announce that Renfrewshire Council has joined the partnership.

Stewart Marshall, Renfrewshire Council Flood Risk Management Lead, said: "There is considerable hydraulic interaction across the shared boundary between Renfrewshire Council and Glasgow City Council, and we are delighted to join the MGSDP and engage in multi-agency strategy planning and delivery of MGSDP objectives".

David Hay, Chair of the MGSDP Steering Group, welcomed Renfrewshire Council to the MGSDP and said: "Delivering the Vision of the MGSDP is a complex challenge and best tackled through an integrated, partnership approach, in line with the Flood Risk Management Act. The MGSDP will only be strengthened through closer working with Renfrewshire Council and the sharing of ideas, knowledge and enthusiasm to set and deliver strategic and local objectives".

## North Renfrew Flood Prevention Scheme to protect 376 homes from flooding



Flooding in Ferry Road, Renfrew – January 2012

The final and largest phase of the North Renfrew Flood Prevention Scheme has been approved for implementation. The project is an important element of the Renfrewshire Council strategy for protecting local communities, and is part of an integrated approach to making sure Renfrewshire is properly prepared to cope with the challenges of current extreme weather and future climate change.

The decision approves the award of a £3.4m construction contract to provide demountable flood protection road barriers and a large (5,000 litres per second, 13m diameter, 10m deep) pumping station on the Mill Burn for a 1:200year event and tidal surge. The project is required to address the current combined sources of tidal flooding from the River Clyde and flooding, particularly during heavy rain, of the culverted Mill Burn due to tide locking. The project will protect 376 ground floor properties that are at risk of coastal flooding, along with almost twice that figure of upper flats that would otherwise be inaccessible. The start on site is due in Autumn 2014 with completion due in early 2016.

Earlier phases of the project involved diverting the

Mill Burn, constructing nearly a kilometre of earth embankments and dredging more than 10,000 tonnes of contaminated sediment from the ferry dock, which was then in-filled with imported material. When completed, the total expenditure will be circa £10.2m.

The project has required close working with key partner organisations SEPA and Scottish Water.



North Renfrew Flood Prevention Scheme construction underway



## Site visit to review retrofit SuDS in London



**MGSDP representatives on-site in London**

On 30th May a delegation from the MGSDP undertook a site visit to several sites in London to review a number of projects that have been successfully implemented in the Lambeth and Greenwich boroughs.

Representatives from Glasgow City Council, Scottish Water and Scottish Canals attended and were given a very informative guided tour by Owen Davies, Flood Risk Manager for The Royal Borough of Greenwich, and the driving force behind the schemes.

The projects demonstrated that retrofitting is deliverable if all stakeholders, including individual property owners

where appropriate, commit to working together to overcome the perceived barriers and adopt a 'best practice' approach to surface water management. Not only do the projects deliver the primary benefit of surface water management, but they also offer bio-diversity, urban cooling and wider socio-economic / health benefits associated with the introduction of green infrastructure into the urban environment, so addressing the issue of urban creep. The projects have also resulted in very positive local community engagement and empowerment.

Further information on the urban retrofitting successfully implemented in London is available [here](https://www.mgsdp.org).



**Reedworth Street – Before**



**Reedworth Street – After**



**Reedworth Street – Now**



# South Dalmarnock Regional Surface Water management scheme nears completion

## Background

In 2009, Clyde Gateway promoted the South Dalmarnock Integrated Urban Infrastructure project and produced a strategic integrated urban infrastructure drainage plan. This plan is aimed at delivering surface water management, amenity, access and biodiversity benefits for the South Dalmarnock area with the key element being the delivery of a regional SuDS connecting The Clyde Gateway (A728 highway) to the River Clyde.

Surface water management plans are a modern approach to managing excess surface water and reducing the risk of flooding and pollution, often entering streams and rivers, by using natural methods to store water and by providing a base level of treatment and then controlling its release. Their use also has the benefit of contributing to biodiversity, nature conservation and urban design.

The regional strategy, delivered in a collaborative approach between Clyde Gateway, Glasgow City Council, Scottish Water and SEPA, is the best-practice implementation of several of the MGSDP Guiding Principles of urban biodiversity and landscape enhancement. It is designed for the severity of flood events, a presumption that water will be kept on the surface, creation of blue-green networks, integrated urban master planning / design and being climate change ready.

## Regional Suds Concept

The concept for the regional SuDS is to deliver an exemplar approach to surface water management and relieve pressure from the existing combined sewer system by directing surface water run-off through a system of open SuDS features including a micropool, swales and a pond. Doing this will build drainage capacity in Dalmarnock, helping unlock local development potential and reduce the risk of flooding during storm events.

Set within a landscaped parkland location, and capitalising on the location by The Clyde Walkway, the open SuDS features will also enhance the environment and bio-diversity of the area by increasing the provision of quality recreational open space, and create the initial steps of a green network public realm link between Dalmarnock Cross and the River Clyde.

## Current status

The regional SuDS has been designed to receive flows from a 36 hectare area, thereby potentially removing up to 27,000m<sup>3</sup> of surface water from Scottish Water's combined sewer. A construction contract was let by Clyde Gateway to remediate the former power station site at Dalmarnock at a cost of circa £4.2m and this contract included the construction of the SuDS and associated earthworks (estimated cost c.£800,000). As of summer 2014 the open water SuDS features have been constructed and landscaping is establishing, and

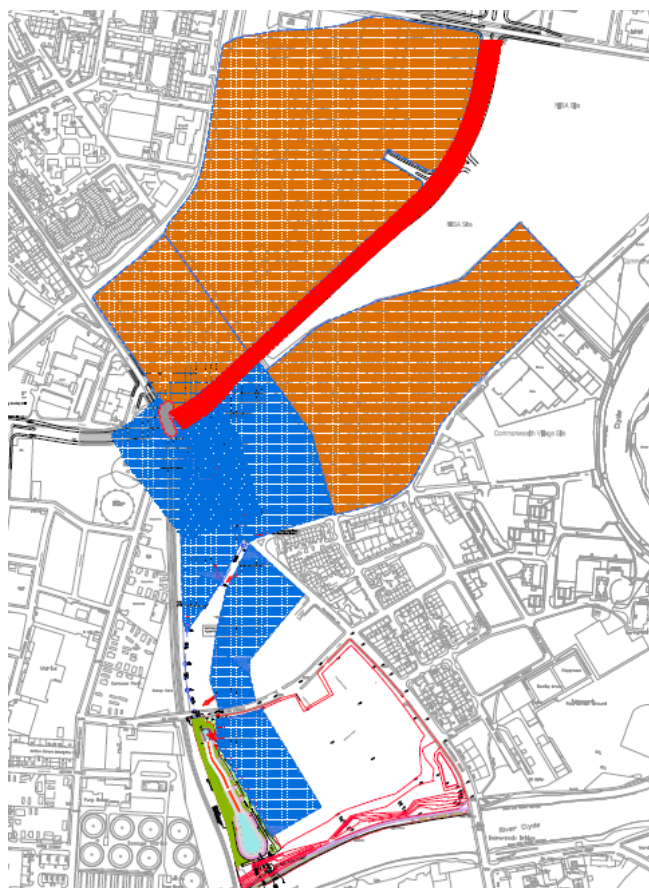
the final pipe connections northward to receive flows from the surface water drainage for The Clyde Gateway are presently under construction with an anticipated completion in September 2014 for the whole system to be operational. The adoption/maintenance of the pond and associated infrastructure has been agreed in principle with Scottish Water and Glasgow City Council in a pioneering approach to regional SuDS under the MGSDP.

## Next steps

In the coming months, Clyde Gateway will be updating the South Dalmarnock Integrated Urban Infrastructure plan to: record completed development in the Dalmarnock area since 2009; review future development opportunities; and ensure that the infrastructure plan continues to provide strategic direction for the future of the South Dalmarnock area.



The recently constructed open SuDS feature looking South toward the River Clyde



Catchment Area for Regional SuDS

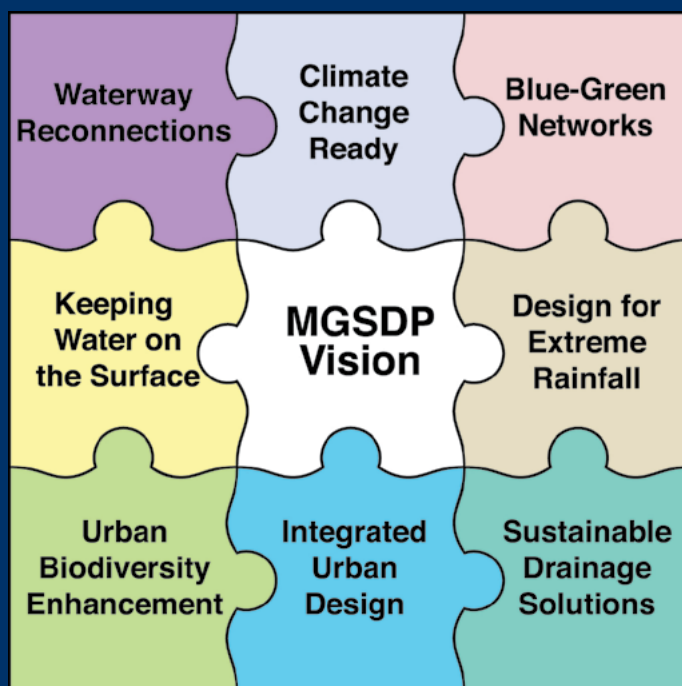
## MGSDP projects included in City Deal bid

A number of MGSDP projects have been included in the City Deal funding bid, and are now subject to detailed business case review prior to funding being confirmed. It is anticipated that the City Deal will fund a number of significant projects that will help to deliver the MGSDP Vision.

City Deal is an initiative that gives local authorities greater responsibility to stimulate and support economic growth through substantial investment in economic infrastructure. As well as Glasgow, the areas to benefit from the City Deal include North Lanarkshire, East Renfrewshire, Renfrewshire, East Dunbartonshire, South Lanarkshire, West Dunbartonshire and Inverclyde.

Richard Brown, Chair of the MGSDP Board, said: "Securing the City Deal fund demonstrates the significant commitment from Glasgow City Council to invest in infrastructure to support economic growth across the city region. The City Deal provides a great opportunity to give momentum to the delivery of the MGSDP Vision, working with our MGSDP partners."

Further updates will be provided in future Briefing Notes.



## Glasgow awarded membership of the 100 Resilient Cities Network



The Rockefeller Foundation launched and funded the worldwide Resilient Cities Centennial Challenge in 2013 to enable 100 cities to better address the increasing shocks and stresses of the 21st century. Nearly 400 cities across six continents applied to be among the 100 cities selected to receive technical support and resources to create and implement a resilience strategy and put in place a Chief Resilience Officer (CRO) to oversee the process.

100 Resilient Cities (100RC) [www.100resilientcities.org](http://www.100resilientcities.org) defines resilience as "the ability of a system, entity, community, or person to withstand shocks while still maintaining its essential functions and to recover quickly and effectively. Simply put, resilience is what enables cities to survive, adapt and thrive in the face of acute shocks and chronic stresses".

The first tranche of 32 cities was announced on December 3, 2013. Each of the 32 cities is currently

kicking off their engagement process. Other members include Christchurch in New Zealand, New Orleans in Louisiana and Durban in South Africa.

Glasgow worked closely with 100RC to provide our first Resilience Workshop on 17th April 2014. Neill Coleman, Rockefeller Foundation Vice President (Global Communications), and Scott Rosenstein of 100RC flew in from the U.S. to meet city business and community leaders including Councillor Gordon Matheson, Leader of Glasgow City Council, and Councillor Alastair Watson, Glasgow's Executive Member for Sustainability and Transport, at the inaugural event.

Councillor Matheson told delegates: "Glasgow is proud to be one of the first members of the 100 Resilient Cities and delighted to be working with the Rockefeller Foundation to strengthen our city's resilience."

"The recent flooding in England graphically demonstrated the need for cities to be prepared for the worst. Incidents of exceptional weather are increasing in frequency due to climate change and this is a challenge no city can afford to ignore."

This new, exciting partnership will build upon firm foundations already in place in Glasgow to produce and deliver a strong strategic plan to minimise the chances of problems occurring and, in the event they do, soften the impact on the city, its citizens and economy."

The workshop was the first step in opening out the resilience conversation in Glasgow. Next steps involve building upon already established partnerships in relation to resilience work including Climate Ready Clyde and the Metropolitan Glasgow Strategic Drainage Partnership to develop a new partnership working.



# Shafton Road Flooding Project completed

A key environmental improvement project to tackle the issue of flooding in part of the Temple area of Glasgow has been completed.

The investment of £1.9 million by Scottish Water in improvements to its waste water network will reduce the risk of flooding in the Shafton Road area, where more than 60 properties have experienced recurring flooding problems for a number of years.

To minimise the risk of flooding in the Shafton Road area, where 27 properties have been affected by internal flooding and 35 by external flooding, contractors working for Scottish Water installed a Combined Sewer Overflow (CSO) on the trunk sewer upstream on its waste water network in the Summerston area of Glasgow.

The CSO, which took about six months to complete, will help protect the Shafton Road area from flooding during prolonged storm conditions by preventing the water levels in the sewer from reaching flood levels.

Mark Maclaren, Scottish Water's regional communities team manager, said: "Scottish Water is committed to doing everything we can to help communities and customers by playing our part in tackling flooding and dealing with the impact of heavy rainfall.

"Some properties in the Shafton Road area have suffered from recurring flooding over a number of years and we fully appreciate the inconvenience this can cause.

We know that affected customers will welcome completion of our investment in these improvements to our network."

Before the project started, Scottish Water carried out detailed investigations into the flooding in the Shafton Road area, including using computer modelling, and these indicated that the flooding was caused by capacity issues in the trunk sewer network."

On occasions, floodwater or heavy rainfall flowed into Shafton Road when a nearby trunk sewer flooded our network at Strathblane Gardens and Anniesland Business Park."

The trunk sewer serves a significant area and levels in the sewer can be significantly affected by rainfall. The investment in a new CSO to the River Kelvin in Summerston has substantially reduced the risk of flooding."

The project was part of a £250 million, five-year programme of work Scottish Water announced in February 2013 which will continue to improve river water quality and the natural environment of the River Clyde and its tributaries, enable the Greater Glasgow area to grow and develop, alleviate sewer flooding and deal with the effects of increased rainfall and climate change.

Work completed recently has also helped the city as it prepared for the Glasgow 2014 Commonwealth Games.



CSO Outfall Headwall Construction

For additional information visit our website at [www.mgsdp.org](http://www.mgsdp.org) for more information on our work to deliver the MGSDP Vision.



[www.glasgow.gov.uk](http://www.glasgow.gov.uk)



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