



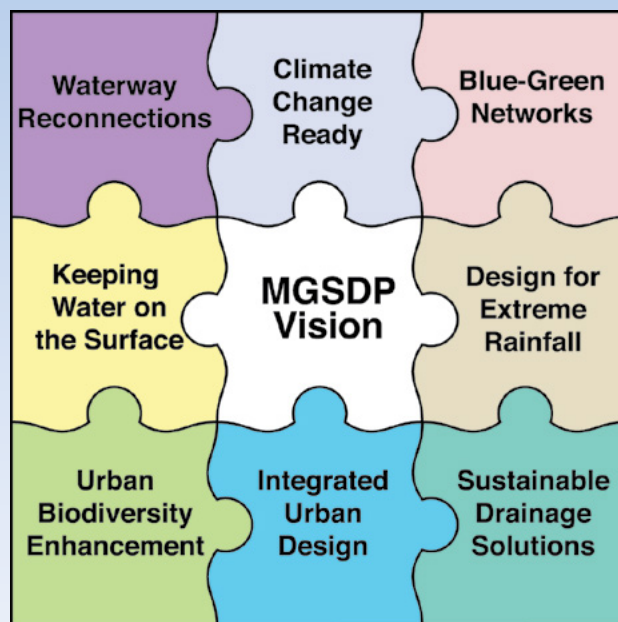
The Metropolitan Glasgow Strategic Drainage Partnership

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, Clydeplan, South Lanarkshire Council, Scottish Canals, Renfrewshire Council, East Dunbartonshire Council, North Lanarkshire Council and Network Rail. 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.

New MGSDP Vision and Guiding Principles Video Now Available

The MGSDP (www.mgsdp.org) has produced a new video to explain the importance of collaborative and integrated working, the MGSDP Vision to transform how the city region thinks about and manages rainfall to end uncontrolled flooding and improve watercourse water quality, and how this vision will be realised through partnership working shaped by the following guiding principles:

The video is available via the MGSDP website or at the Glasgow City Council YouTube channel here – <https://youtu.be/L7B8yr62xCi>



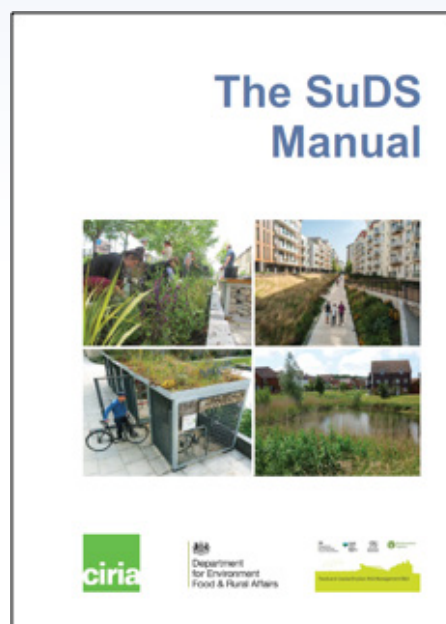
Updated CIRIA SuDS Manual (C753) Now Available

On 12th November 2015, the Construction Industry Research and Information Association (CIRIA) launched an updated version of the most comprehensive sustainable drainage system (SuDS) guidance for the UK. The updated SuDS Manual (C753) incorporates the very latest research and industry practice to support the cost-effective planning, design, construction, operation and maintenance of SuDS.

SuDS recognise the value of rainwater, seeking to capture, use, delay or absorb it, rather than reject it as a nuisance or problem. Sustainable drainage delivers multiple benefits. As well as delivering high quality drainage whilst supporting areas to cope better with severe rainfall, SuDS can also improve the quality of life in developments and urban spaces by making them more vibrant, visually attractive, sustainable and resilient to change by improving urban air quality, regulating building temperatures, reducing noise and delivering recreation and education opportunities.

The MGSDP welcomes the updated SuDS Manual as it aligns with the MGSDP Vision and Guiding Principles

The updated SuDS Manual is free to download from the CIRIA website here - http://www.ciria.org/Memberships/The_SuDS_Manual_C753_Chapters.aspx



Scottish Water Glasgow Wastewater Investment Update



CSO Construction Works at Millbrae Bridge on the White Cart Water

Reducing or attenuating the amount of existing surface water in the combined sewer network, and a strong presumption against any new surface water discharges to the combined sewer network, are vital for long term, sustainable, drainage systems, and it is recognised that a mix of grey (using traditional capacity improvement approaches) and green infrastructure is required to both ensure that chronic deficiencies of the existing sewer system are addressed, and allow for future demand on the system.

Scottish Water is more than half way through what will be the biggest investment in the Greater Glasgow area's waste water infrastructure in more than a century, to bring existing, ageing infrastructure up to the standard of a modern, integrated and sustainable sewerage system that will improve the environment and biodiversity on the River Clyde and its tributaries. This investment will also help tackle flooding, the effects of climate change and the needs of growth and economic development in the city and its neighbouring areas.

Scottish Water started its £250m, five-year programme of work to improve river water quality and the natural environment of the River Clyde in early 2013.

The investment follows years of collaboration and studies by the MGSDP and the improvements are required to meet European directives and SEPA recommendations,

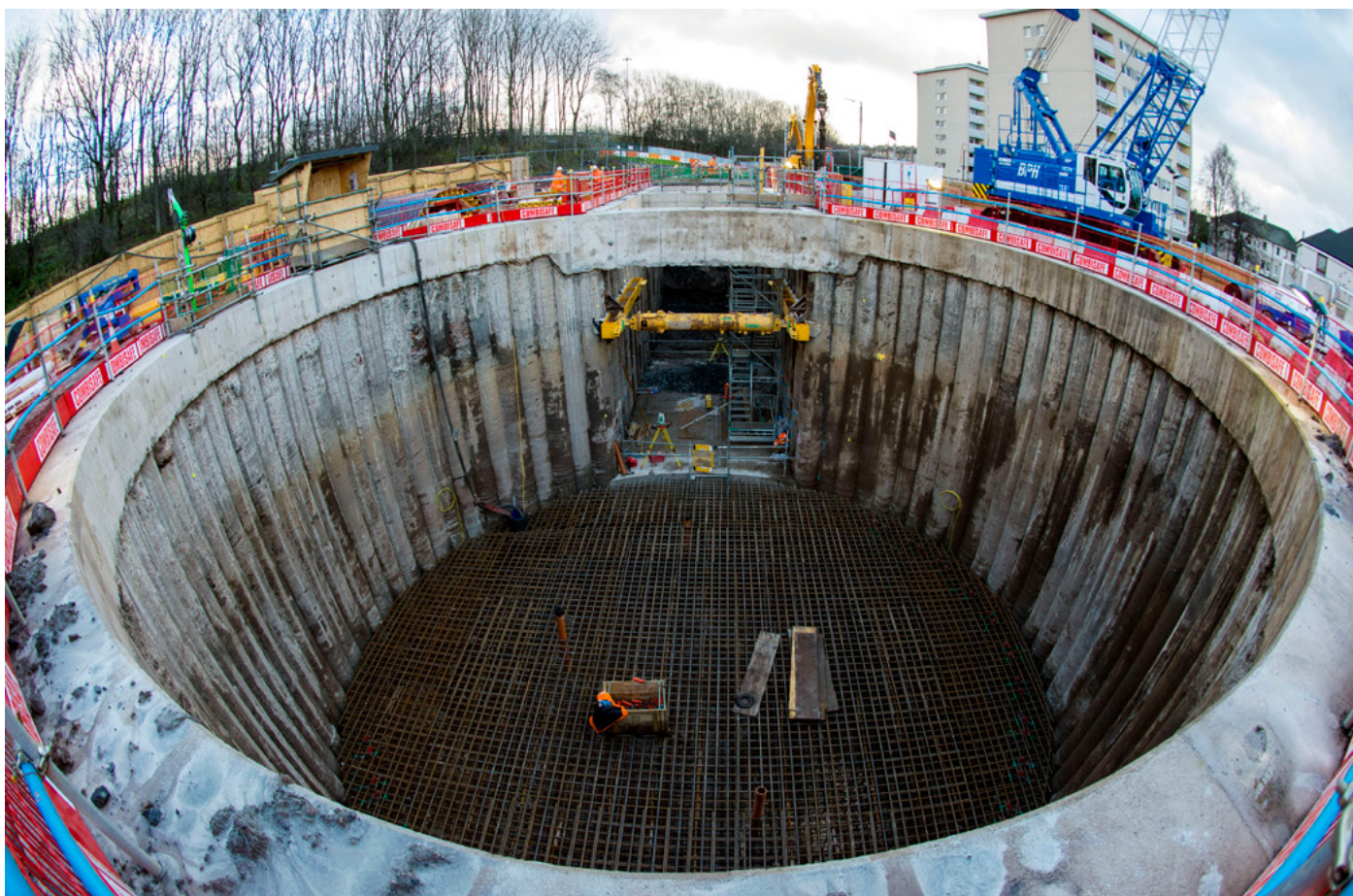
and will contribute towards the Scottish Government's objective to comply with the Urban Waste Water Treatment Directive and to achieve Water Framework Directive 'good ecological status' or 'good ecological potential' for more than 40 miles of the River Clyde and its tributaries.

While Scottish Water is tackling the area's high-priority wastewater needs in this phase of work, the MGSDP Vision and this will require significant further similar investment.

Scottish Water's investment includes upgrades to about 200 Combined Sewer Overflows (CSOs) or outfall pipes – safety valves used to control waste water during heavy rainfall - on the River Clyde and tributaries such as the River Kelvin and White Cart Water at a cost of about £105m.

The investment also includes a number of key projects to tackle sewer flooding at a cost of about £45m and waste water improvements in the south west of Glasgow to manage excess surface water from areas with known "pinchpoints" which cause restrictions in the system.

At the very centre of Scottish Water's hydraulic improvements is a £100m waste water or sewer tunnel called the Shieldhall Tunnel, which will be by far the biggest single project in the programme.



Shieldhall tunnel shaft construction at Craigton. Picture by SNS

The tunnel will greatly contribute to the reduction of water quality problems in the the River Clyde and its tributaries. It will increase capacity and alleviate pressure on the existing network by providing additional storm water storage.

It will also reduce the risk of flooding in Aikenhead Road and Curtis Avenue in Mount Florida and Robslee Drive, Robslee Road, Robslee Crescent and Orchard Park Avenue in Giffnock.

The Shieldhall Tunnel will be constructed from Craigton industrial estate and will run under Bellahouston Park, Pollok Park, along Titwood Road to Queen's Park, where it will tie in to the existing sewer network.

Preparatory work, including mine working consolidation and utility diversion work, started in mid-2014.

The team involved in the Shieldhall Tunnel for Scottish Water, known as the Glasgow Tunnel Partnership, is a commercial joint venture between Costain and VINCI Construction Grands Projets (correct) called CVJV, with additional local partners George Leslie and AECOM. Technical support is being provided by CH2M.

CVJV's preparatory work is expected to be completed in the spring of 2016, after which the tunnelling proper will begin. The Shieldhall Tunnel is expected to be completed by about the end of 2017.

For further updates on the tunnel and to view an animation of the tunnel route and construction, visit the Scottish Water website here -

www.scottishwater.co.uk/investment-and-communities/your-community/glasgow-investment/sst



Shieldhall tunnel shaft construction at Craigton. Picture by SNS

City Deal Update

City Deal is an initiative that gives local authorities greater responsibility to stimulate and support economic growth through investment in infrastructure. The Outline Business Case for MGSDP City Deal projects (see previous MGSDP Newsletters) was approved by the Glasgow City Region City Deal Cabinet on 16th February 2016. This group also approved expenditure to support the phased development of the 14 projects under the MGSDP Workstream up to Full Business Case in the coming months.

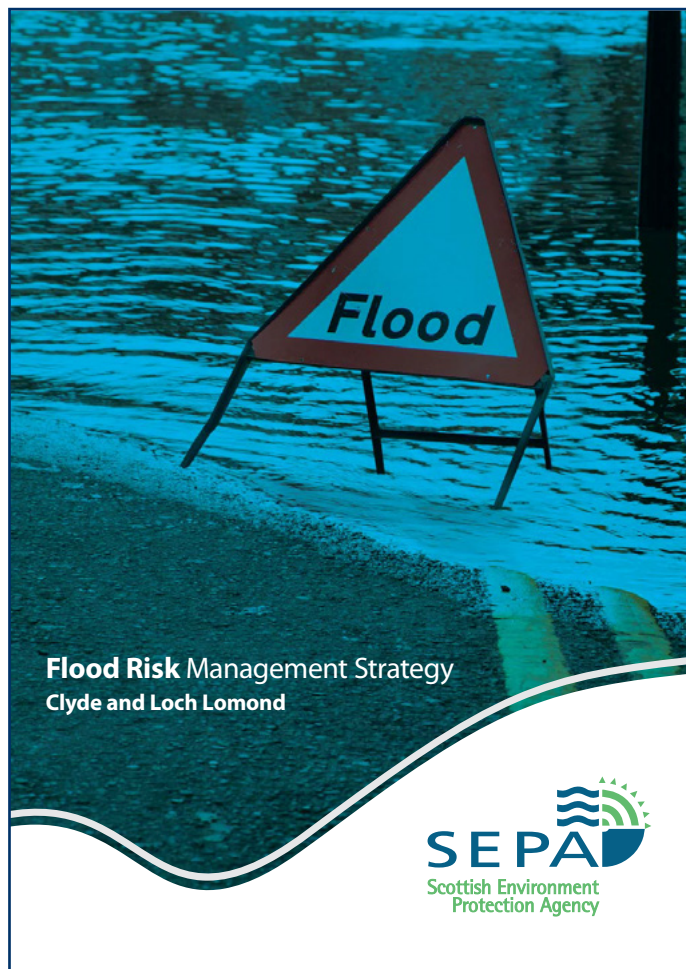
Further details available here - www.glasgow.gov.uk/index.aspx?articleid=19101

Flood Risk Management Strategies Launched

For the first time in Scotland a set of co-ordinated plans have been published, which set out prioritised actions for tackling flood risk. The Flood Risk Management Strategies are an important step in understanding the challenges we face and taking informed and risk-based decisions to address them. Launched by the Minister for the Environment, Climate Change and Land Reform and Land Reform, Aileen McLeod MSP said "the strategies were the culmination of six years' work by SEPA, local authorities, Scottish Water and other organisations. They will help us to target investment and co-ordinate actions across our public bodies and our partnership agencies to tackle flooding."

Working together SEPA, local authorities, Scottish Water, National Park Authorities and Forestry Commission Scotland have developed the most comprehensive assessment of flood risk in Scotland. This information will help us to focus our collective efforts on where flood risk is highest and the benefits of investment are greatest.

The strategies, published by SEPA and available here - <http://apps.sepa.org.uk/FRMStrategies/> - will be implemented by local authorities when they publish Local Flood Risk Management Plans in June 2016. As the lead local authority for the Clyde and Loch Lomond Local Plan District, Glasgow City Council will work with other local authorities and local partners to publish the local plan for the most of the MGSDP area.



Flood Risk Management Awareness Raising

Following publication of the Flood Risk Management Strategies by SEPA, the Clyde and Loch Lomond local authorities are undertaking a range of engagement activities through February and early March to raise awareness of the Clyde and Loch Lomond Flood Risk Management Strategy, flood risk within the local authority area (as identified in the SEPA Flood Maps available here - <http://map.sepa.org.uk/floodmap/map.htm>) and inform the

development of the Clyde and Loch Lomond Local Flood Risk Management Plan.

The objective of this activity is to ensure a greater awareness of these key documents, particularly for those communities identified as at risk of flooding. Further details of the activities being undertaken are available from each Clyde and Loch Lomond local authority.

Floodline Business Campaign

A key MGSDP objective is to reduce the risk and impacts of flooding, however flooding will still happen. SEPA's Floodline service provides live flooding information and advice on how to prepare for or cope with the impacts of flooding 24 hours a day, 7 days a week. The telephone service and website can be accessed by everyone but by registering you can receive free flood messages for your area of interest direct to your phone.

A dedicated campaign has been launched to promote the free service to businesses.

<http://www.floodlinescotland.org.uk/your-business/>

By registering with Floodline, businesses can receive advance notice of where and when flooding is likely to happen, giving them time to take action and reduce the damage and disruption flooding of flooding.



Floodline Guide For Older Communities

Flooding can affect us all but older residents in the community may be more vulnerable to its impacts and less able to take quick action. In partnership with 'Contact the Elderly', Floodline launched a campaign to share advice with older communities on how to reduce the impact of flooding on their lives.

http://www.floodlinescotland.org.uk/media/6746/floodline-older-people-leaflet_final.pdf

Finding out when flooding is predicted, what to do and who can help is all available from Floodline's dedicated phone line making it easy for older people to get the advice they need to stay safe and protect possessions of sentimental value.



Floodline Kids

Meet Puddles, a new mascot for Floodline Kids, the new area designed especially for a younger audience to learn how to be prepared for flooding and stay safe around flood water.

<http://www.floodlinescotland.org.uk/floodline-kids/>

The mascot will help to guide kids around the website, games and checklists and supports SEPA's work with primary schools across Scotland through in-school presentations, community initiatives and educational theatre. It is also a useful resource for parents and teachers.



Colquhoun Park Flood Alleviation Scheme Looking Good and Working Well

The Colquhoun Park Flood Alleviation Scheme, first noted in the Winter 2014/15 MGSDP Newsletter, had landscaping works undertaken and a new play-park installed in late summer 2015. Vegetation regeneration is now well established and the flood storage ponds are excellent examples of implementing the MGSDP Vision and Guiding Principles.

The ponds and associated works are actively contributing to reducing the risk of flooding in the local community.



GCC Surface Water Management Plan Updates

Glasgow City Council, working in partnership with MGSDP stakeholders, is advancing several Surface Water Management Plan (SWMP) projects across Glasgow. The aim of the SWMPs is to identify sustainable measures to manage surface water to reduce the risks and impacts of flooding, in line with the Flood Risk Management (Scotland) Act 2009, and the MGSDP Vision and Guiding Principles.

The list of phase 1 SWMPs currently being progressed by GCC are:-

- Croftfoot SWMP
- King's Park SWMP
- Overwood Drive / Aikenhead Road SWMP
- Garrowhill SWMP; and
- Drumchapel SWMP

A key element of the SWMP process is public engagement and projects, including future SWMPs, have a requirement to engage with the local community to review the extent of flooding and opportunities for sustainable management of surface water, both on public land and private land / properties as the whole community has the ability to contribute to reducing flood risk.

For more information on our work to deliver the MGSDP Vision, visit our website at www.mgsdp.org



www.glasgow.gov.uk



www.scottishwater.co.uk



www.sepa.org.uk



www.clydegateway.com



www.clydeplan-sdpa.gov.uk



www.scottishcanals.co.uk



www.southlanarkshire.gov.uk



www.renfrewshire.gov.uk



www.northlanarkshire.gov.uk



www.networkrail.co.uk



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