



Summer 2018

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, Transport Scotland 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.

£100 Million Shieldhall Tunnel Project Completed

Scotland's biggest sewer superstructure has become operational in a feat of engineering hailed as "extraordinary" by Environment Secretary Roseanna Cunningham.

The tunnel is the flagship project in Scottish Water's investment in the Glasgow area's waste water infrastructure, the biggest since Victorian times, and stretches for 3.1 miles from Craighton to Queen's Park via Bellahouston Park and Pollok Park.

It was constructed over almost two years by a team of more than 100 workers, from countries across the world, using a state-of-the-art tunnel boring machine (TBM) named Daisy the Driller by a local schoolboy, which weighed 1000 tonnes and was longer than 14 buses.

The tunnel will alleviate pressure on the existing waste water network with 90,000 cubic metres of extra storm water storage, which is the equivalent of 36 Olympic-sized swimming pools.

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 tunnel will substantially reduce the amount and frequency of waste water discharged from a number of Combined Sewer Overflows (CSOs) and enable more than 90% of what was discharged at these CSOs to be treated at Shieldhall Waste Water Treatment Works before being discharged there.



Environment Secretary Roseanna Cunningham and Scottish Water Director of Capital Investment Mark Dickson in the Scottish Water control room where the country's vast network of pipes and sewers are managed and monitored around the clock.

Ms Cunningham said: "The strategic importance of the Shieldhall Tunnel as part of the ongoing investment across Glasgow by Scottish Water cannot be understated. It's a fantastic example of the capital investment programme delivering real long-term benefits for communities to reduce flooding, help deal with the impact of climate change and improve the environment".

For further information on this project, visit the Scottish Water website -

<http://www.scottishwater.co.uk/about-us/media-centre/latest-news/environment-secretary-opens-shieldhall-tunnel-in-glasgow>

Surface Water Management Plan Project Approved for Cranhill & Easterhouse Areas



Councillor Kenny McLean and Dr Mike Cantlay OBE, Chair of Scottish Natural Heritage, mark the start of work at Blairtummock Park

Enabled by funding from the Glasgow City Region City Deal - www.glasgowcityregion.co.uk, the Green Infrastructure Fund (led by Scottish Natural Heritage on behalf of the Scottish Government) as part of the wider Greater Easterhouse project - www.greeninfrastructurescotland.scot/green-infrastructure-fund-projects and Vacant & Derelict Land Fund.

This £7.4 million project will create and enhance existing greenspace through the implementation of surface water management ponds, channels and day-lighting of culverted burns, in three specific areas of Glasgow – Blairtummock, Cranhill and Ruchazie.

The surface water management features will reduce the risks and impacts of flooding both for the local area and downstream through the east end of Glasgow, which will benefit existing communities and help to facilitate regeneration.

The project started on site in late August 2018 and is expected to be completed by June 2019.

This project is the first of a number of surface water management plans being delivered by Glasgow City Council in the coming years, to reduce the risks and impacts of flooding.

Review of Central Scotland Local Authority Policies on Green Infrastructure Published

In April 2018 the Glasgow & Clyde Valley Green Network Partnership (GCVGN) published its report into the quality of Green Infrastructure (GI) policies across the Central Scotland Green Network region.

The report provides a review of the current policy environment, and identifies opportunities for strengthening planning policy. It sets a baseline from which discussions on how comprehensive and robust GI policy can be achieved by those who have an interest in seeing good, well maintained multi-functional GI integrated into new housing developments across Central Scotland.

For further information, visit the GCVGN website - www.gcvgreennetwork.gov.uk

Construction of Glasgow's Smart Canal Underway

Construction of Europe's first ever 'smart canal' scheme, which will use the 250-year-old Forth & Clyde Canal and 21st century technology to mitigate flood risk as well as enable massive regeneration, has started in Glasgow.

The £5.0m North Glasgow Integrated Water Management Scheme (NGIWMS) project, being delivered by Glasgow City Council, Scottish Canals and Scottish Water, will use sensors and predictive weather technology to provide early warning of wet weather before moving excess rainfall from residential and business areas into stretches of the canal where water levels have been lowered by as much as 10cm. This will create 55,000 cubic metres of extra capacity to transport surface water from North Glasgow to the River Kelvin during storms.

The pioneering new digital surface water drainage system will unlock 110 hectares across the north of the city for investment, regeneration and development, paving the way for more than 3000 new homes at sites such as Cowlairs, Hamiltonhill, 100 Acre Hill and Ruchill Hospital over the next 10-15 years.

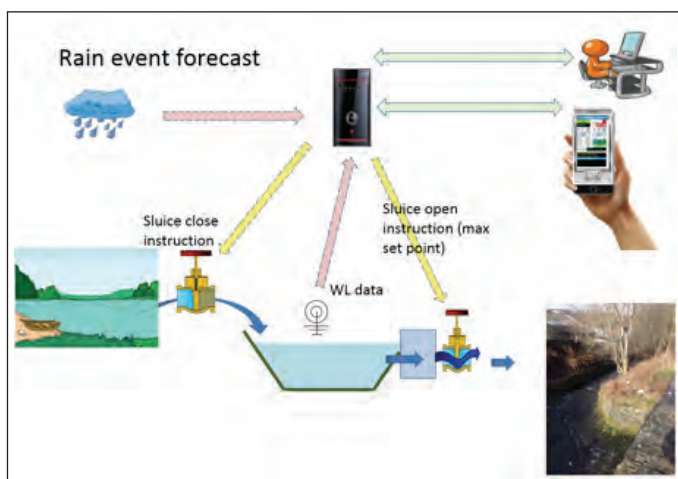


Diagram showing indicative control system

The project started on site in May 2018 and is expected to be completed September 2019.

For further information on the project, visit the Scottish Canals website www.scottishcanals.co.uk

Natural Flood Management Network Launched in Scotland

Launched on 14th March, the Natural Flood Management Network Scotland is a Scottish Government funded initiative, developed by the James Hutton Institute and supported by SEPA, aimed at encouraging the sharing of knowledge and best practice around NFM.

It is user driven, and provides a portal to upload case studies, events, news and resources on NFM and connect the NFM community.

For further information and to join the network, visit the NFM Network website - www.nfm.scot

River Kelvin Environmental Improvements Project Under Way

Scottish Water has recently started a major project on its waste water infrastructure in the West End of Glasgow to improve the environment and water quality in the River Kelvin.

The first stage of the project will see investment of £2.5m for improvements to key waste water infrastructure in Hillhead and Kelvingrove Park, and will include the installation of new infrastructure at three key locations; Otago Street/Otago Lane, Westbank Quadrant and near the bandstand in Kelvingrove Park. Three new Combined Sewer Overflows (CSOs) with screens will reduce the frequency and volume of waste water spillages in storm conditions, and so help improve water quality in the River Kelvin.

The project has been carefully planned, in liaison with stakeholders, to minimise disruption. Most of the work is expected to be completed by spring 2019. However, work in the Westbank Quadrant area, close to Hillhead Primary School, will be

carried out over a period of six weeks this summer, another six week period in summer next year and the final work at this location is scheduled to begin in summer 2020 to minimise any inconvenience to the school, its staff, pupils and parents.

Consultation with the River Kelvin Angling Association during the early stages of planning for the project, also informed the final location of one of the overflow pipes further downstream from its original location.

Discussions are ongoing to determine what further improvement work is required for the second stage of the project, which will involve similar investment in other parts of the West End.

For further information, visit the Scottish Water website - <http://www.scottishwater.co.uk/About-Us/Media-Centre/Latest-News/Environmental-Investment-Project-in-Hillhead-and-Kelvingrove-Park-Areas-of-Glasgow-Starts>

River Restoration Project to Minimise Flood Risk

An exciting new river restoration project designed to restore the Glazert Water to a more natural condition and minimise the likelihood of flooding in the River Kelvin Catchment downstream is one step closer.

The proposal for the Glazert River Restoration Project in the heart of Lennoxton is the result of a study commissioned by Scottish Environment Protection Agency (SEPA) and the Scottish Government to restore natural waterways.

The aim is to provide flood risk benefits to the River Kelvin and to reduce the likelihood of flooding to communities in Kirkintilloch and Torrance. The restoration work will physically restore the Glazert watercourse in Lennoxton.

Councillor Billy Hendry, East Dunbartonshire Council Convener of Place, Neighbourhood and Corporate Assets Committee, said, "The proposed works will provide protection for communities previously affected by flooding and the wider area will also become more resilient to the type of extreme weather events that climate change is likely to bring. The works would also enhance opportunities for outdoor access and recreation."

For further information, visit the SEPA website - <http://media.sepa.org.uk/media-releases/2018/river-restoration-project-to-reduce-flood-risk/>

Paisley Environmental Improvements Project Progressing



Construction of tunnel drive shaft

Work is progressing on the £17m project which involves the construction of a one mile-long interceptor sewer under the streets of Paisley, and the installation of Combined Sewer Overflows (CSOs) in the town centre.

Scottish Water contractors Amey are constructing the sewer, which is up to 1.8m diameter, from Bridge

For further information, including a map showing progress of the works, visit the Scottish Water website - <http://www.scottishwater.co.uk/investment-and-communities/your-community/glasgow-investment/environmental-improvements/paisley>

Street car park, beneath Saucel Street, Saucelhill Park and the railway line near Canal Street Station, Espedair Street, Rowan Street and Kilncroft Lane / Neilston Road. This route was chosen to minimise disruption to local residents, road users and businesses.

Once completed, the project will substantially reduce the frequency of spills from the sewer network into the Espedair Burn and White Cart Water in storm conditions, improving the river water quality in the two watercourses and, in turn, the River Clyde.

As part of the legacy for this project and a 'thank you' to the local community for their patience throughout the work, Scottish Water and its partners carried out footpath and tree clearing at Jenny's Well Nature Reserve. Not far from Paisley town centre, the reserve runs along the White Cart Water and provides a peaceful haven for wildlife.

The project is due to be complete and operational in early 2019.

Langside Drive Sewer Investment Underway

Work on a further £3.2m project to improve Scottish Water's waste water infrastructure in the southside of Glasgow began in June 2018, and is expected to last five months.

The project will upgrade a CSO in Langside Drive with better screening and new pipework to reduce the frequency and volume of waste water spillages in storm conditions, and so help improve the water quality in the White Cart Water.

For further information, visit the Scottish Water Website - <http://www.scottishwater.co.uk/about-us/media-centre/latest-news/060618-glasgow-southside>

Some road traffic management is necessary to enable the work to take place and road users are urged to follow signs which will be displayed to minimise any disruption for the local community while the work is being carried out.



Flood Risk Management in Scotland - 2018 Consultation on Potentially Vulnerable Areas

Potentially Vulnerable Areas (PVAs) are where significant flood risk exists now or is likely to occur in the future. They are part of the National Flood Risk Assessment (NFRA), which is updated and published every six years and considers flooding from rivers, the sea and from surface water.

This provides a clear picture of past, current and future flood risk and helps Scotland to understand and prioritise where work could benefit the most. The PVAs and NFRA are a vital part of protecting people, properties, businesses, communities, infrastructure and our environment.

Since 2011, when PVAs were first identified, SEPA and partners have been working hard to improve data and methods of flood risk assessment. As a result, this new information has resulted in changes to the original PVAs.

From 1st May through to 31st July of this year SEPA consulted on the proposed, updated, PVAs, the methodology used to assess the risks and impacts for each PVA and the consultation arrangements, which will inform the Flood Risk Management Strategies - <https://consultation.sepa.org.uk/evidence-and-flooding/pvas2018/>

A summary of the consultation responses is now available on the SEPA website at the link noted above, and SEPA will take account of views received and submit proposals to Scottish Ministers later this year. Scottish Ministers will formally designate PVAs which will be published in December 2018 as part of the second NFRA.

White Cart Water Flood Prevention Scheme - Phase 3 Underway

Last noted in the Winter 2017-18 Newsletter, Phase 3 of the White Cart Water Flood Prevention Scheme commenced works on site in February 2018 and is expected to be completed mid 2019.

This works, being undertaken by RJ McLeod, currently involve the construction of 9 sections of flood defence - a combination of flood defence walls and embankments which will provide direct flood defence along sections of both the White Cart Water and Auldhouse Burn.

For further information and progress updates for this circa £9 million phase of the overall project, visit the project website - www.whitecartwaterproject.org

Neptune Steps Rocks Maryhill Locks

Organised by Red Bull and Scottish Canals, the toughest open-water swimming race in the UK took place in Glasgow's Forth & Clyde Canal on March 10th March.

Faced with faced some of the toughest conditions in the event's four year history – a water temperature as low as 3 degrees and ceaseless, lashing rain, the elite endurance athletes raced through 420 metres of cold water, climbing 18 metres over seven canal locks. Each canal lock gate featured a different obstacle, which the swimmers having to climb over before diving into the next section of water, including cargo net, ropes, wood ladder, rope ladders and a climbing wall.

In the women's race, last year's winner Jennifer Davis defended her title. For the men, Dan Jones, a first time open water swimmer, was the winner.



Chilly Conditions on the Day

For further information on the event and a full list of the results, visit the Red Bull website – <https://www.redbull.com/gb-en/events/red-bull-neptune-steps-uk>

Year of Young People Youth Urban Games Event

On 25th August 2018, the Youth Urban Games took place in North Glasgow. International Parkour, BMX and Skateboard athletes showcased their skills, and local young people got the chance to have a go – all celebrating the area's reputation as an 'urban playground'

Hosted by Scottish Canals with support from SportInspired, Glasgow City Council, and Glasgow Life, the free-to-watch event put Scotland's young people in the spotlight, celebrating their talents, contributions and creating new opportunities for them to shine.

The Youth Urban Games (YUG 2018) was supported by the Year of Young People 2018 event fund, managed by EventScotland, part of VisitScotland's Events Directorate.

For further information and a look back on the Youth Urban Games, visit the Scottish Canals website here – <https://www.scottishcanals.co.uk/yug2018/>



Scott Houston of Parkour Scotland jumps into Glasgow

Other News / Links of Interest

The MGSDP offers congratulations to two Welsh projects that have recently been recognised by picking up awards at the recent [Water Industry Awards 2018](#). These projects demonstrate many of the MGSDP Objectives and Guiding Principles through their delivery of retrofit green infrastructure in residential streets, existing public greenspace and schools to reduce flood risk and improve water quality.

Drainage & Flood Prevention Initiative of the Year - RainScape, Llanelli - www.rainscape.co.uk/

Engineering Project of the Year - Greener Grangetown, Cardiff - www.greenergrangetown.wordpress.com



Retrofit Highway Raingardens delivered by the Greener Grangetown Project

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



www.eastdunbarton.gov.uk