Briefing Note 9 - Summer 2012

# The Metropolitan Glasgow Strategic Drainage Partnership

The Metropolitan Glasgow Strategic Drainage Partnership (MGSDP) is an innovative and collaborative venture between local authorities (Glasgow City Council leading), the Scottish Environment Protection Agency (SEPA), Scottish Water, Scottish Enterprise and Scottish Canals that will upgrade and modernise the Glasgow area's drainage and sewerage network, reduce flooding and support urban development requirements while improving water quality and the environment.

## Airdrie Environmental Project for MGSDP

Molly the Mole

The Airdrie Environmental Project will provide multiple benefits for the local community by improving water quality and reducing flood risk. In particular, the water quality in the South Burn, which flows into North Calder Water and Luggie Burn before it reaches the River Clyde, will be improved and flooding in Cairnhill Road, around the railway station bridge, will be reduced. This will result in eight nearby properties being removed from the Scottish Waters at Risk Register.

**Creating tunnels**

A tunnelling machine, nicknamed "Molly the Mole", successfully completed the 1.2km storm transfer tunnel below Victoria Place in December 2011

This tunnel is central to the whole project as it takes flows from sewer overflows and the flood waters from the Cairnhill area. They will subsequently be transferred to a new storm tank near Locks Street.

Work has also been completed in Cairnhill Road and Broomknoll Street. This work upgraded the existing sewer network and will play a part in reducing the frequency of flooding which has blighted the area for several years. Additional work, adjacent to Airdrie Business centre, has also been completed which will reduce flooding in this area.

"Wullie Worm", our other tunnelling machine, has created smaller tunnels under the area around the railway station and adjoining streets. These connect the new storm transfer sewer to the local network.

**Working with the community**

This is one of the largest Scottish Water projects during the 2010-2015 investment period. Central to the project is working well with the local community to share information and minimise disruption.

Geoff Aitkenhead, Asset Management Director at Scottish Water, said, "We have communicated regularly with the local community to ensure the work has as little impact as possible. Our team has also volunteered for a community event cleaning up Centenary Park in Airdrie by weeding plants, painting and cleaning up play equipment."

The project team is keeping local residents and businesses aware of the latest news and developments through letter drops, posters, press releases, school bag drops, face to face meetings and online channels.

For further information on the Airdrie Environmental Project please visit www.scottishwater.co.uk/airdrie, www.facebook.com/cleanairdrie, or follow the project on Twitter: @cleanairdrie.

# A new approach to Flood Risk Management in Scotland

Scotland is adopting a new approach to how we tackle flooding. We can now do more to reduce the impacts of floods by making better use of the science and information available. This will help plan and target investment to protect our communities more effectively. Flooding crosses institutional and administrative boundaries so public bodies are working together to co-ordinate their actions, make better use of resources and deliver Flood Risk Management Strategies and Local Flood Risk Management Plans which consider the whole river catchment. This means that flooding can be tackled effectively and not moved to another part of the water network.


The Flood Risk Management (Scotland) Act 2009 provides a framework for a co-ordinated and sustainable approach to flood risk management in Scotland. At the heart of this new approach are a series of assessments and plans.

**A national picture of flooding in Scotland**

For the first time in Scotland, SEPA produced a National Flood Risk Assessment which brought together the latest information on the sources and impacts of flooding. The assessment, which identified one in 22 homes and one in 13 businesses are at risk from flooding, marked a significant step forward in our understanding and management of flood risk. In addition to the likelihood of flooding from rivers, groundwater and the sea, SEPA also assessed the flooding caused when heavy rainfall is unable to enter drainage systems.

This combined understanding of where flooding is likely to occur, and the impact when it does, will allow local authorities, SEPA and Scottish Water to target their efforts in areas where flood risk can be managed to reduce the adverse effects on our communities.

**Developing plans to tackle flooding**

The biggest change brought about by the new approach to managing flood risk is the production of Flood Risk Management Strategies and Local Flood Risk Management Plans. These Strategies and Plans will consider all sources of flooding and be developed jointly by SEPA, local authorities and Scottish Water.

Across Scotland, SEPA will prepare Flood Risk Management Strategies which will summarise the main flooding issues and impacts and set out the best combination of actions to address these impacts in the areas most at risk. Building on these Strategies, local authorities will work together to produce Local Flood Risk Management Plans. Local Plans will outline a programme of work for each of the areas at the greatest risk to the impacts of flooding and where action is likely to be most effective at reducing flood risk.

# Working in partnership to reduce flood risk

Public bodies are working closer together than ever before to deliver a new approach to flooding in Scotland. Partnerships like the MGSDP have become best practice examples for how multi-organisation initiatives can be a success and are recognised as the best approach to making the most effective use of public resources.

To support the development of Flood Risk Management Strategies and Local Flood Risk Management Plans, SEPA identified geographical areas across Scotland, called Local Plan Districts. These areas include whole river catchments and cross local authority boundaries. Local authorities, SEPA and Scottish Water will work together within these areas to produce plans which will include work to assess and prioritise surface water flooding issues.

Taken together, Flood Risk Management Strategies and Local Flood Risk Management Plans will form a single point of reference to describe public bodies' response and commitment to address flooding issues.

Each Local Plan District has a lead local authority who will perform several important functions over and above the general duties and powers given to local authorities in the Flood Risk Management Act. In the metropolitan Glasgow area, the Clyde and Loch Lomond Local Plan District is being led by Glasgow City Council. As Glasgow City Council is also one of the leading authorities within the MGSDP this enables a close link to be established between the two partnerships.


Scottish Water and SEPA are also members of both partnerships which will ensure that information, experience and skills developed by the MGSDP can be shared with the new local partnership responsible for developing Local Flood Risk Management Plans. Scottish Water are also responsible for assessing the risk of flooding from sewers (foul, combined and surface water sewers) and will help to identify where a Surface Water Management Plan is required to reduce flood risk.

## MGSDP finalists in Water Industry Achievement Awards

The Water Industry Achievement Awards celebrate and reward outstanding innovation in the UK water industry. The MGSDP was a finalist in the two categories of Partnership Initiative of the Year and Sustainable Drainage and Flood Management Initiative of the Year.

George Rattray (SEPA), Chris Wilcock (Scottish Water) and Jeremy Osborne (MWH) represented the MGSDP at the award ceremony which took place at the International Convention Centre, Birmingham on Thursday 29 March.

As a finalist in the Partnership of the Year category, we displayed how the unique partnership approach adopted by the MGSDP is an exemplar for how organisations can work together effectively.

The innovation shown by the MGSDP and the contribution of the partnership to the management of flood risk also made the final in the category of Sustainable and Flood Management Initiative of the Year.

The MGSDP has been recognised as a model to follow and all the partners involved in the project are proud to have achieved this recognition.

achievement

# Glasgow Surface Water Management Study

The Glasgow Surface Water Management Study (GSWMS), a project which was procured by Scottish Water on behalf of the MGSDP and undertaken by a joint Halcrow/MWH project delivery team, has been completed and will produce a suite of measures to facilitate sustainable surface water management.

The purpose of the GSWMS, whose conclusions were being finalised at the time of publication, was to provide a strategic direction to drainage improvements across the metropolitan Glasgow area so that the most sustainable choices are made between managing surface water at source, improving sewerage capacity, improving watercourse capacity and managing surface water above ground in different parts of the area.

This is to be achieved by providing guidance to help ensure that Integrated Drainage Plan (IDP) projects and any local Surface Water Management Plans deliver a range of integrated measures across metropolitan Glasgow that:

- **manage flood risk to an appropriate level in a sustainable way;**
- **adopt an appropriate range of measures according to individual circumstances at the locations;**
- **improve effectiveness of different drainage conduits;**
- **manage extreme events through creating manageable surface flood pathways and temporary storage areas such as parkland or open public areas;**
- **and help create a better urban environment through improving amenity and biodiversity.**

The GSWMS will provide the MGSDP with strategic direction and design guidance on the most appropriate way to drain development, alleviate flooding and reduce pollution through better surface water management.

It will provide details of generic engineering solutions and practices, adaptable to local circumstances and applicable at local, communal and regional scales.

Specific ‘strategic drainage direction’ statements will be provided for hydraulically/geographically distinct ‘drainage communities’ across the area.

These will provide long-term route maps for the development of drainage in those locations.

Retrofitting surface water management measures within developed urban areas will be a key activity in striking a better balance between the uses of different parts of the drainage system.

The GSWMS will screen for and identify surface water retrofit locations where these techniques can be piloted to prove concept and develop best practice for Glasgow prior to more widespread implementation.

# SEPA consults on how to assess the risk of flooding

Sewerage systems are a key component of the sources and pathways of flooding in urban catchments and the assessment of flood risk from sewerage systems is an important step towards gaining a better understanding of flood risk.

SEPA held a consultation with Scottish Water and local authorities throughout April on the form of the assessment which should be carried out to assess the risk of flooding from sewerage systems.

A requirement of the Flood Risk Management (Scotland) Act 2009, which is the legislation driving the new approach to managing flood risk, is for Scottish Water to assess the risk of flooding from sewerage systems in areas, identified by SEPA in the National Flood Risk Assessment, as being at risk of flooding and requiring further appraisal.

The consultation ensures that the form of assessment Scottish Water will undertake can be integrated with the flood risk information held by SEPA and local authorities. The consultation also provided an opportunity for Scottish Water and local authorities to propose additional areas for which the risk of flooding from the sewerage system would need to be assessed.

**Visit our website at www.mgsdp.org for more information on our work and previous briefing notes.**

For additional information

GLASGOW and the CLYDE VALLEY strategic development planning authority
www.gcvsdpa.gov.uk

Scottish Water
Always serving Scotland
www.scottishwater.co.uk

CLYDE GATEWAY
www.clydegateway.com

SOUTH LANARKSHIRE
www.southlanarkshire.gov.uk

SEPA
www.sepa.org.uk

Scottish Canals
www.scottishcanals.co.uk

Glasgow CITY COUNCIL
www.glasgow.gov.uk

**Further update in Winter 2012/13**