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SUDS and flood risk management

Jim Conlin

Environmental Regulation Manager

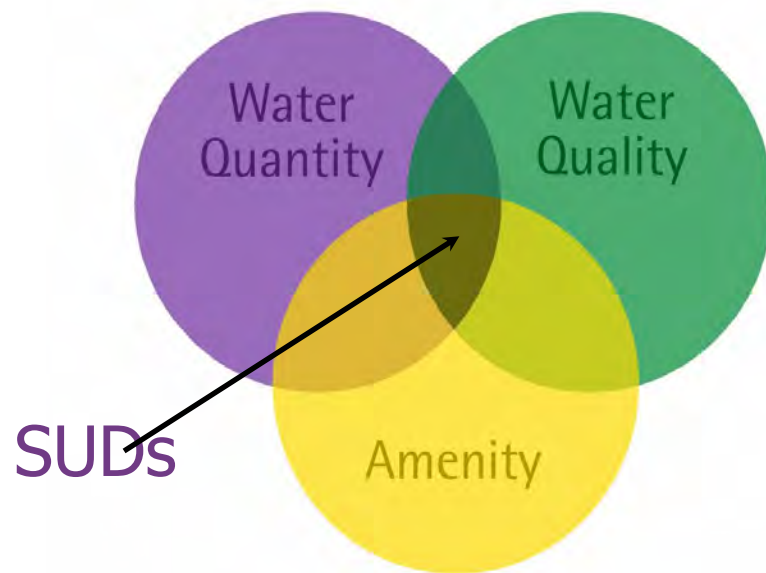




Outline

- SUDs and Scottish Water
- SUDs and flooding
- Integrated Drainage and Surface Water Management Planning
- South Dalmarnock redevelopment project

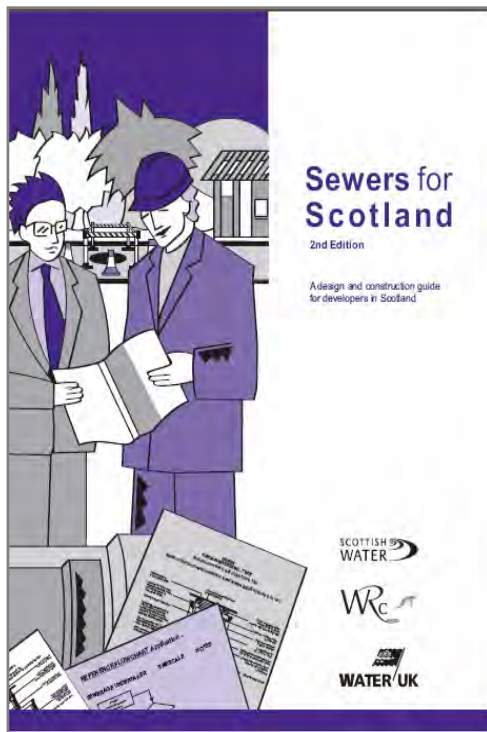
What is Sustainable Urban Drainage?



“A concept that focuses decisions about drainage on the environment and on people”.

“A more sustainable and natural way of dealing with surface water run-off from rainfall”.

SUDS in Scotland – Water Environment and Water Services (Scotland) Act 2003 (WEWS)



- Allowed Controlled Activities Regulation to be developed (SUDS are the law GBR10 and 11)
- Sewerage Scotland Act amended to include to SUDs
- Defines SUDs that will be the responsibility of SW

Sustainable Flood Management

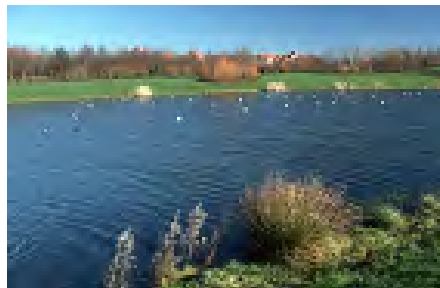


- New Flooding Bill for Scotland
- Scottish Water will be a “Responsible Authority”
- Government consultation highlights the need for legal agreements and integrated drainage arrangements (Surface Water Management Plans)

SUDs and flooding



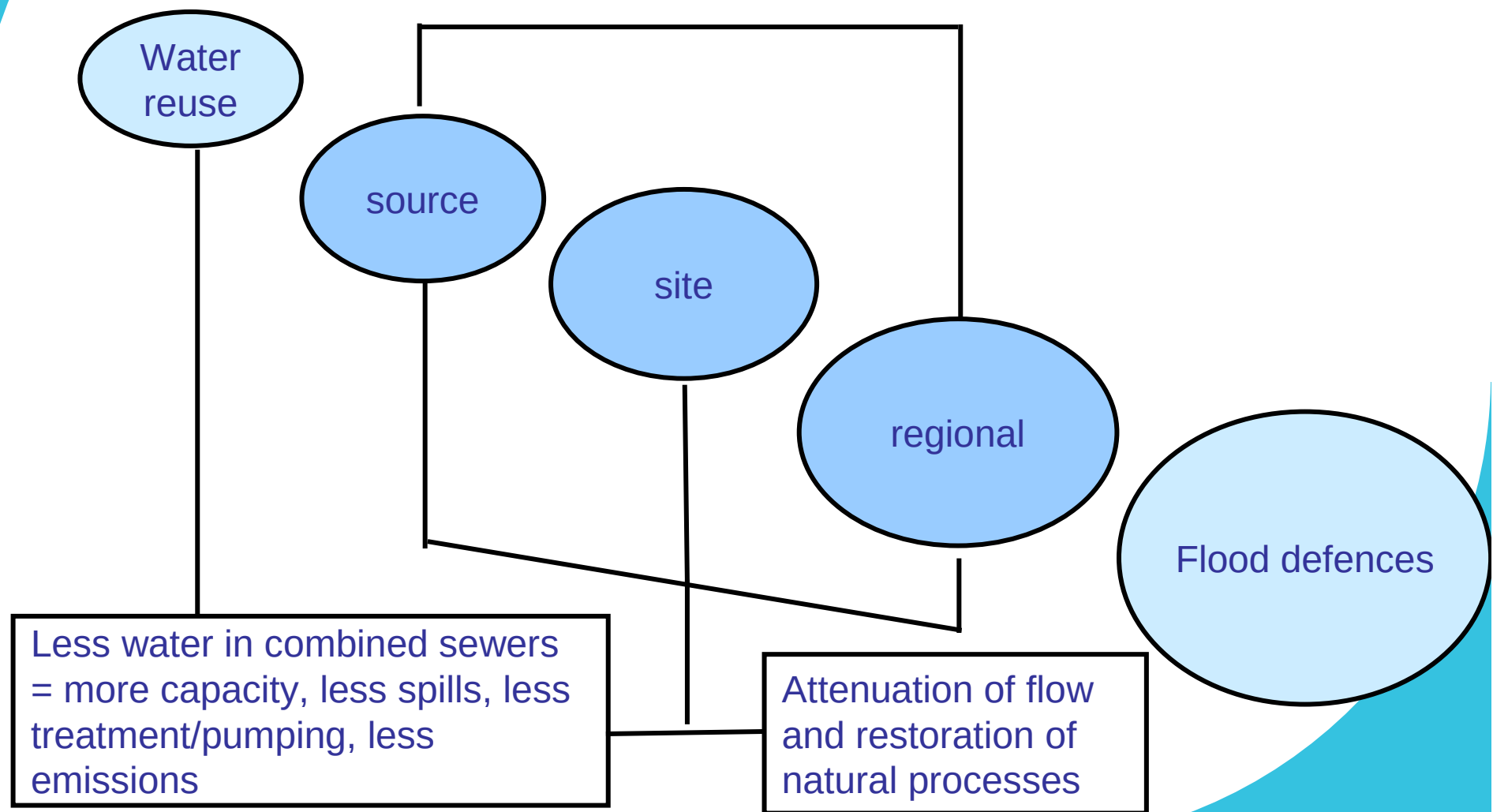
Basin



Pond

- Tool to manage flood risk in urban areas
- Part of flood adaptation strategy
- Part of flood mitigation strategy
- Part of a much bigger strategy

SUDs Management Train



Management Train

SCOTTISH
WATER



Scottish Government SUDs Policy Statement

8 November 2007

“Scottish Water has a public drainage duty, and this duty has been extended to include public SUDs. However, it is prudent to realise that this does not mean all SUDs.”

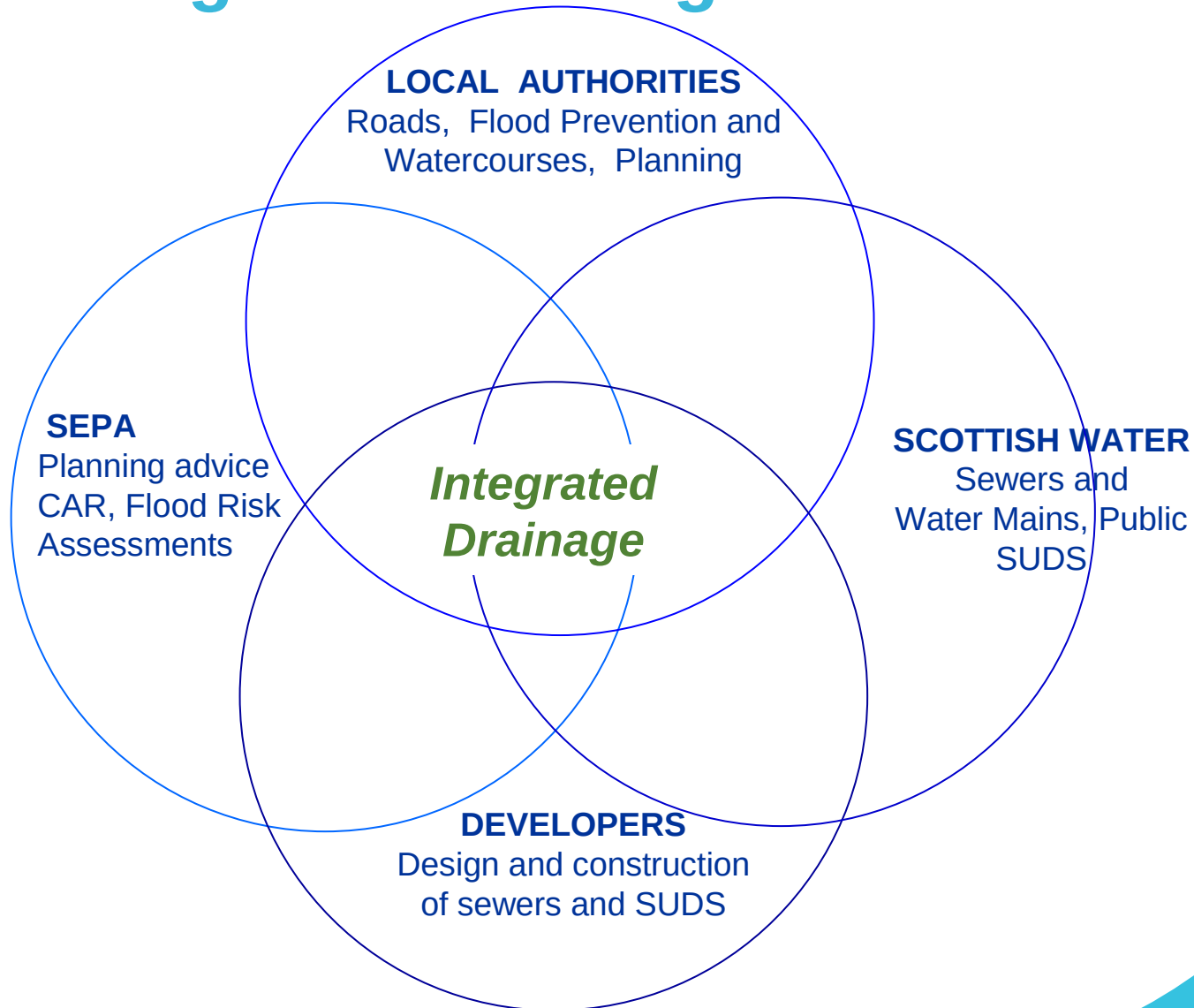
“The various parties involved have to take responsibility and develop a robust sustainable policy, work in partnership, or enter into agreements.”

Surface Water Management Plans



- A tool for the delivery of integrated drainage.
- SWMP identify the most effective and cost-efficient SUDs for the attenuation & treatment of the surface water.
- SWMP will also identify the responsible parties to involve, up front.
- SWMPs have been developed for the Dalmarnock sub-catchment in Glasgow and the South East Wedge in Edinburgh and Midlothian.

Integrated Drainage



SWMP: Section 7 Agreements



Swale



Swale

- Sewerage (Scotland) Act 1968, Section 7
 - Roads drainage to Scottish Water sewers
 - Scottish Water surface water drainage to roads drains
- Roads Authorities in Scotland are developing a “SUDS for Roads” Manual

Opportunities

- Integrated land use planning
- Linking sustainable drainage with open space requirements



Benefits

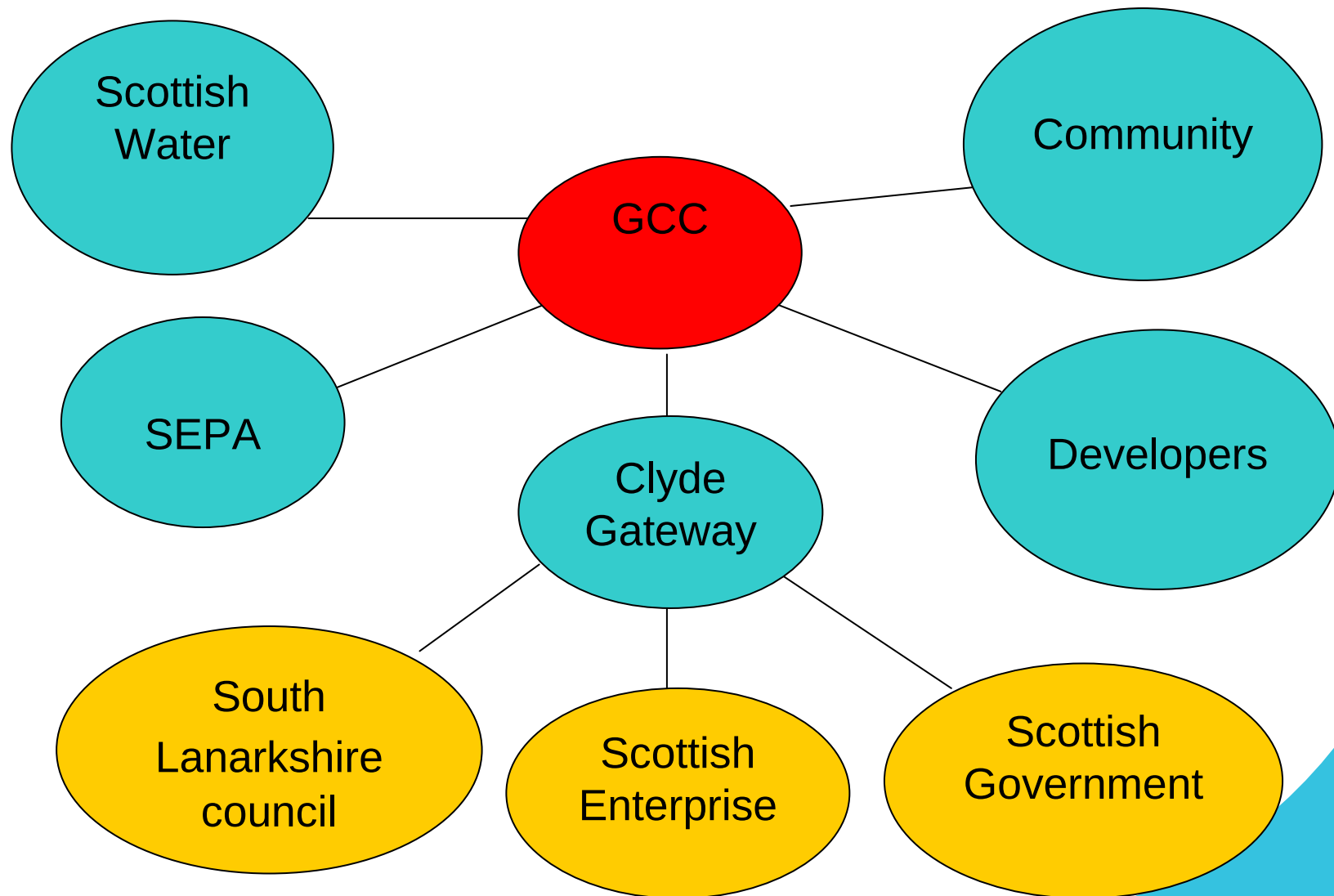
- Improved environment
- Biodiversity & nature conservation
- Added property values
- Reduced infrastructure costs

Example of SWMP: South Dalmarnock



- Part of Metropolitan Glasgow Strategic Drainage Plan (MGSDP)
- SUDS ponds feeding into central linear corridor.
- Encourage source control and treatment train.
- Integrates surface water management, amenity, biodiversity and quality of life.

Stakeholders



SUDs solution



- SW and Glasgow City Council agreed to agree
- SUDs solution will be procured by Clyde Gateway Urban regeneration Company and will be in place by 2014.
- GCC to own system and share maintenance with SW (above and below arrangement).
- Financial implications to be determined in detail.

SW and GCC are currently developing the legal agreement

South Dalmarnock: The bigger picture



- South Dalmarnock is a very good example of Surface Water Management Planning.
- Enables SUDs to be used to their full potential.
- “Can do” attitude of stakeholder has been instrumental for the delivery of the project.
- Will form blue print for future projects across Scotland.



Conclusion

- Urban drainage flooding issues require integrated management.
- Surface Water Management Plans are essential.
- SUDS are an important tool in managing Flood Risk
- We have gone a long way and we can go further.

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