



Susdrain Seminar

February 2017



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- Background & Drivers
- What has been delivered
- Challenges
- Performance & Outcomes
- Customer Engagement
- Future Plans

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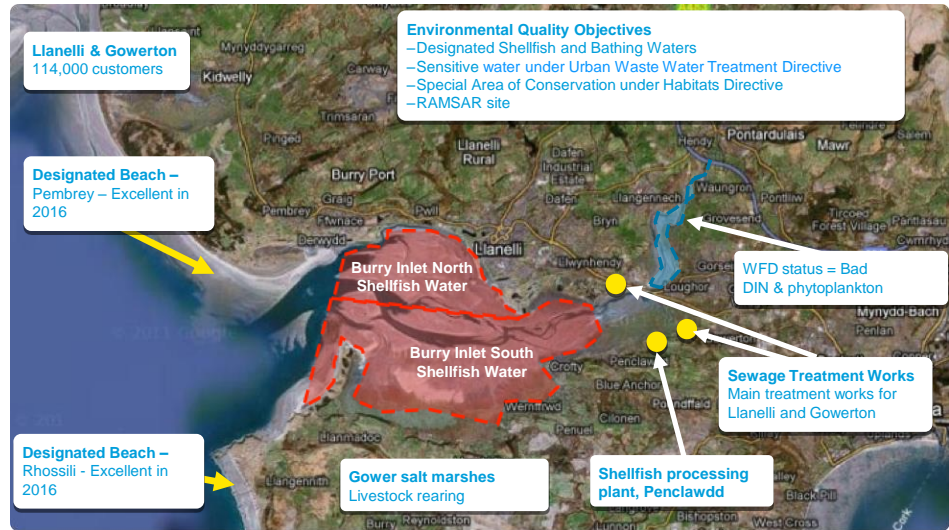
- Since 2001, the UK’s only non-shareholder utility company: all gains go to customers
- Provide a safe and reliable drinking water supply and deal effectively with wastewater for:
- 1.4 million household customers
- 110,000 business customers
- By 2015, some £300 million returned to customers



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The Loughor Catchment





Investment Drivers

- High levels of rainfall runoff causing issues such as:
 - Sewer flooding in residential areas
 - Frequent CSO operation
 - Water quality impact
 - Restraints on development
- As much storm water as Swansea
- Comply with permits & AMP2 guidelines



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Why use a sustainable approach?



International experience of retrofitting

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Achievement to Date - Investment that is Affordable, Sustainable & Innovative

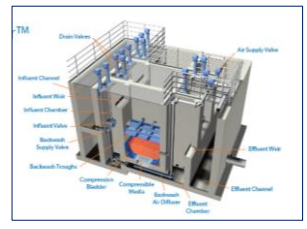
RainScape - stop water from mixing with sewage by retrofitting sustainable drainage



Reduce the impact of what we have to discharge to protect customers



Treat more during storms



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Mixture of Optimisation, Green and Grey Infrastructure



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Challenges - Construction



Challenges - Maintenance

- Initial maintenance issues
 - Early ponding issues resolved
 - Managing GI for evapotranspiration & biodiversity
- Interim maintenance in place
- Pilot in April with Carmarthen CC
 - Confirm costs
 - Confirm who is best placed to do the maintenance
 - Need to balance risk against cost



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Challenges - Statutory Powers / Legal Status

Queen Mary's Walk



Statutory powers ✓

- Swale and below ground conveyance deemed a public sewer

Gleivering Street



Statutory powers ✗

- Highway drainage
- Agreement with Highways Authority under s278 of Highways Act 1980

Stebonheath Primary School



Statutory powers ✗

- Private drainage system in private property
- Private agreement with local authority

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Challenges - RainScape

— What stops us going further?

- Have to target smaller areas
- Increased complexity & cost
- Customer
 - Disruption
 - Affordability

— What are we doing about it?

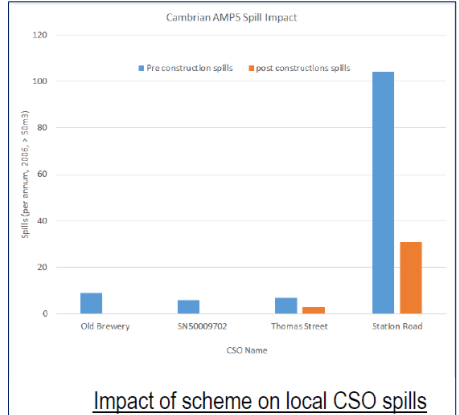
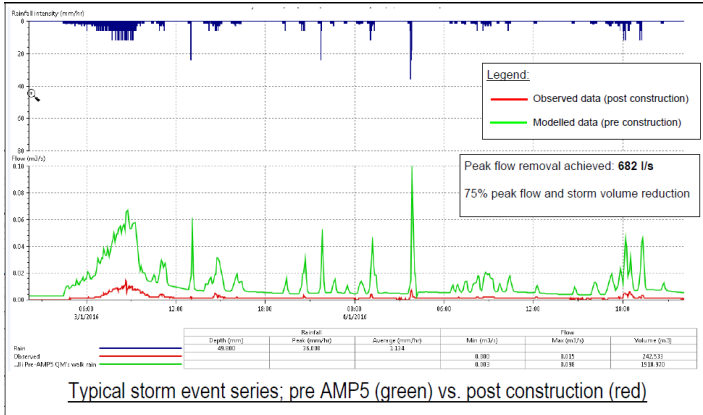
- Customer roof drainage trial
- Smart networks
 - Optimise existing assets
 - Novel approaches to handling & treating storm flows



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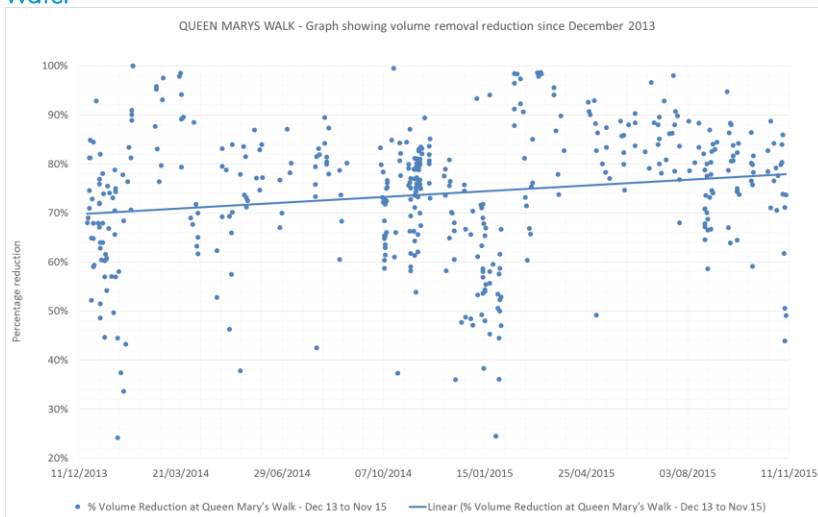
RainScape Performance



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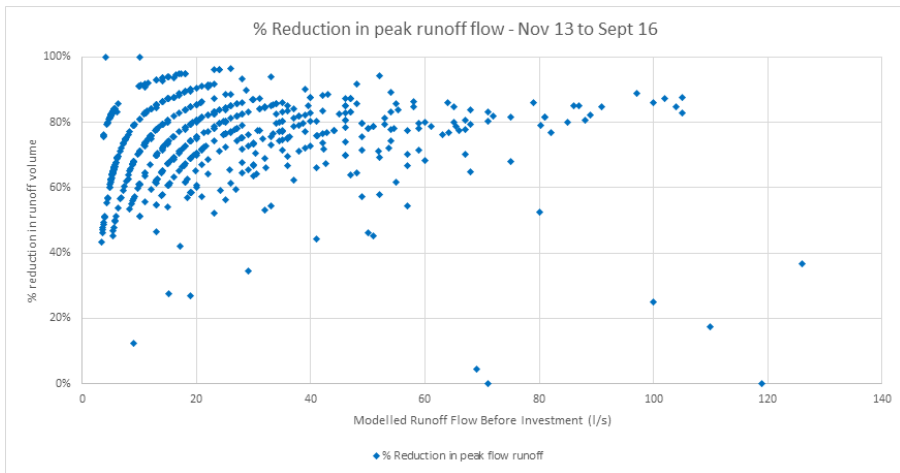
Performance of GI – Improvement Over Time



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Performance of GI - Evapotranspiration vs Modelled Runoff



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Outcomes for Customers

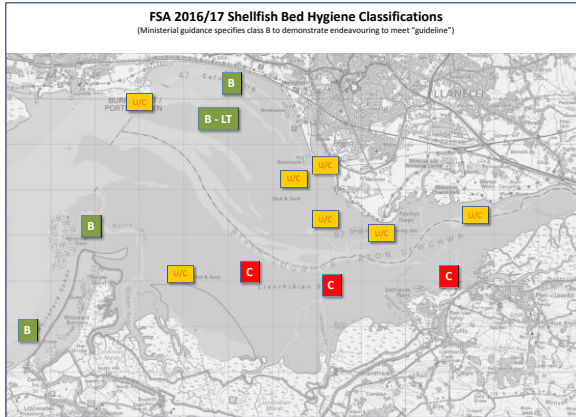
- Sewage flooding:
 - By Dec 2015 – 37 to 0 properties at risk of internal flooding
- Climate change resilience:
 - 25,000 roof equivalents removed across Wales by 2020
 - Reduced vulnerability to urban flooding
- Growth:
 - Facilitated by MOU
- Bills:
 - Lowest cost & most robust solution



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Outcomes for the Environment



- CSO discharge reduction - 40% by 2015, 80% by end of 2020
- Shellfish water quality improved
- Reduced risk for WFD & Habitats
- Pumping less water
- Biodiversity

Water Body Name	WFD Status
Llan - headwaters to tidal limit	Good
Dulais - headwaters to confluence with Loughor	Moderate
Lliw - headwaters to confluence with Llan	Moderate
Gwili - headwaters to tidal limit	Moderate
Loughor - confluence with Aman to tidal limit	Moderate
Morlais - headwaters to tidal limit	Good
Dafen - headwaters to tidal limit	Moderate
Lliedi - headwaters to tidal limit	Moderate
Loughor Estuary Inner	Bad
Loughor Estuary Outer	Moderate

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Customer/Community Engagement

- Targeting Llanelli events to increase awareness
- Raising awareness among the youth
- Taking events to the customer
- Giving something back
 - RainScape Community Fund

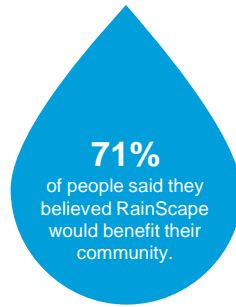
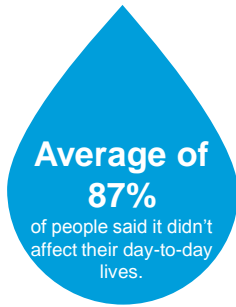
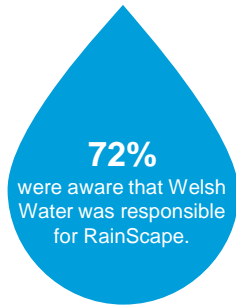


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*RainScape awareness survey taken in April 2016 – 250 people in Llanelli and Burry Port were asked to take part.

RainScape awareness survey



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Investment Strategy / Future Plans

- RainScape strategy
 - *Safeguard the service we provide our customers and the environment...*
- Around 100 projects in AMP6
 - A business as usual approach to sustainably improving service
- MOS to reduce customers' vulnerability to climate change
 - 25,000 roof equivalents by 2020
 - 2050 vision



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Questions

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