Experience from Wales – Retrofitting in the urban environment

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Dŵr Cymru Welsh Water
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Experience from Wales

• Our Surface Water Management Strategy
• Why are we doing it?
• Where are we doing it?
• How are we doing it?
• Who are our partners?
• What are the benefits?
Why are we doing it?

Problems
Unwanted inflows

Consequences
Surface water in sewers

The Multiple Benefits

**Problems**
Unwanted inflows

**Consequences**
Surface water in sewers

Reduce:
Cleaning
Infiltration/treatment
Energy & cost

Causes of surface water in our sewers:

- Groundwater
- Land drainage run-off
- Hard surface run-off
- Roof run-off
- Path & garden run-off

- Roof run-off
- Path & garden run-off

- Hard surface run-off
- Land drainage run-off
- Groundwater
Surface Water Management?

- If we take steps to prevent surface water from entering our assets then the effects are mitigated.
- There are additional benefits in the form of:-
  - Reduced carbon use
  - Lower energy costs
  - The influent to our Advanced Digestion plants become stronger improving their efficiency.
- Customer Benefit from societal value
- Dŵr Cymru’s approach to Surface Water Management is called RainScape
- Provide infrastructure headroom for communities to plan new homes and commercial enterprises

“...The principle that ...sewerage systems should accommodate future flows is unsustainable in the long-term context of climate change.” - Ofwat Climate Change Policy
Where are we doing it?

What really happens behind the scenes?
Co-operation and Collaboration

“We can’t build our way out of this…”

David Balmforth – ICE President

...And we can’t do it on our own!

Llanelli Facilitation Group

Multi Disciplinary  Multi Agency
Challenges or opportunities?
Challenges or opportunities?

Community focus
Maximising benefits

Greener Grangetown – A different model?
Susdrain – SuDS not duds – retrofitting SuDS for maximum benefit

Grangetown - Pocket parks

Before

After

Grangetown – reclaiming the streets for the community

Before

After
Susdrain – SuDS not duds – retrofitting SuDS for maximum benefit

We didn’t have to wait long to see if it worked!
We will adapt our activities to deal with climate change and will safeguard a sustainable environment.

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<thead>
<tr>
<th>Measure of Success</th>
<th>Units</th>
<th>Performance</th>
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<tbody>
<tr>
<td>Adapting to climate change</td>
<td>Reduce the amount of surface water entering our systems</td>
<td>Equivalent no. of Properties</td>
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<tr>
<td>Preventing pollution</td>
<td>Reduce the number of pollution incidents as regulated by NRW</td>
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<td>Preventing pollution</td>
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Susdrain – SuDS not duds – retrofitting SuDS for maximum benefit

RainScape – Investment profile

Summary

- Climate Change makes a big impact to our Waste water assets
- Our Rainscape Strategy is an example of how we are adapting our operations to mitigate that impact
- SuDS are an important part of that Strategy
- We derive additional “non-tangible” customer benefits
- Cooperation and Collaboration with all stakeholders is of paramount importance
- Rainscape improves the overall resilience of our asset base.
Schedule 3 of F&WM Act (2010)

- Recent ENDS Publication on further delay of Schedule 3
- “The announcement talks of implementing SuDS in a way that does not affect development, and we are wary that means there will be a move to dilute the regulations. If you think SuDS affects development, you should try flooding.”

Thank you
Diolch yn fawr
Visit RainScape at www.dwrcymru.com

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