Dŵr Cymru
Welsh Water

Solva Community Council

Dwr Cymru Welsh Water

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Who are Welsh Water?

- **Dwr Cymru Welsh Water** are the Water & Sewerage Treatment provider across Wales, Herefordshire & parts of Deeside

- **3 million customers** served across our operational area
  - **27,000km** of water mains
  - **36,000km** of sewers
  - **843** wastewater treatment works
  - **69** water treatment works

- **DCWW** are regulated by **OFWAT, DWI, Natural Resources Wales** & **Environment Agency (England)**

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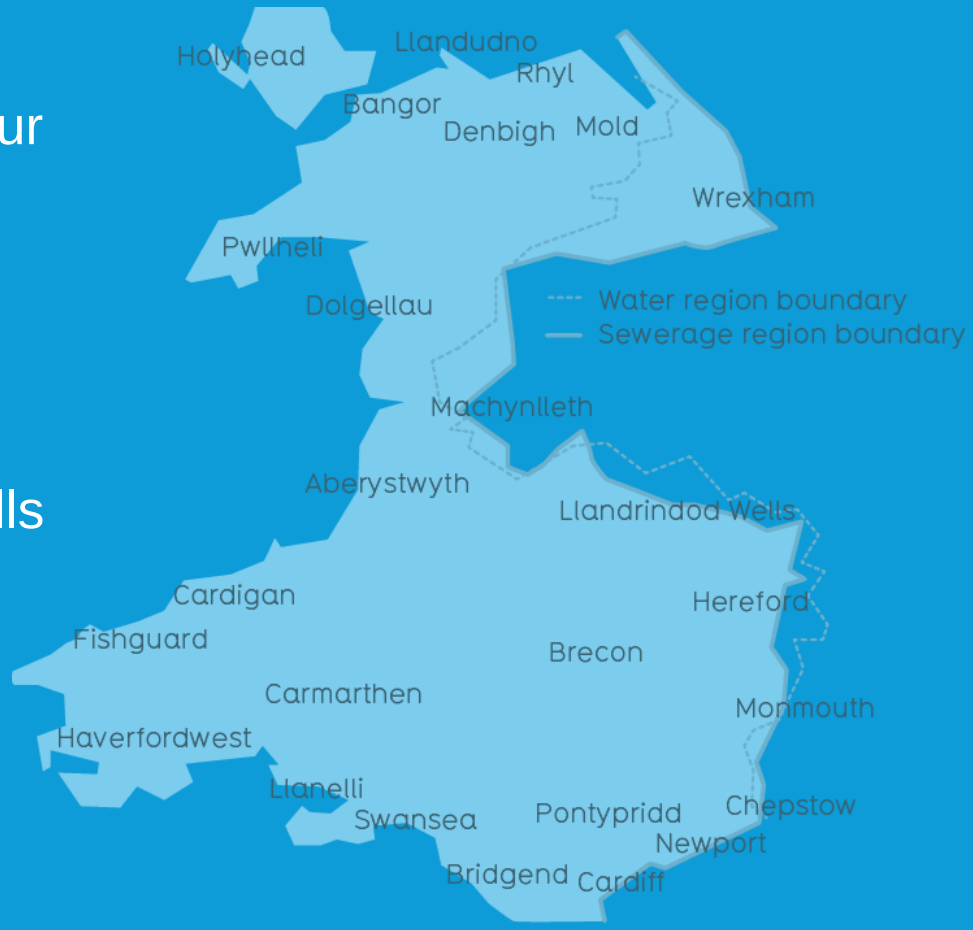
Who are Welsh Water?

- **Not for Profit:** all profits are reinvested for the benefit of our customers
- Not publicly owned, but no shareholders or dividends
- Funded through borrowing at very low rates & customer bills
- Our plans run in **5 year** cycles called **Asset Management Periods**
- Provide drinking water and treat wastewater



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Wastewater Treatment

- Welsh Water receive wastewater from domestic homes, some traders, community facilities etc & usually rainwater
- **Treatment = a combination of settlement and biological (+advanced where needed)**
- Levels are set and permitted by our regulators, dependant on the receiving watercourse quality, allowing safe release back into the environment
- Regulated on multiple aspects including quality and flow
- Treated final effluent from these works discharges to the environment continuously

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Sewerage Network

- Our sewer system serves thousands of people across urban and rural areas
- Some pipes are '**combined**' – meaning they carry both wastewater and rain water
- **Storm Overflow (SO)** – a permitted release point within a combined sewerage system designed to operate when the pipes are overwhelmed
- These SO assets intermittently overflow into waterbodies, such as rivers and seas
- These overflows are necessary to prevent sewer flooding into our homes and businesses – learn more here

HOW OUR COMBINED SEWER OVERFLOWS OPERATE

Climate change is causing more extreme weather behaviour and over populations. Excess rain can cause sewers to back up, putting homes and communities at risk of being flooded with untreated sewage.

Increase in population puts added pressure on the old waste systems.

Flushing of wet wipes, cotton wool, and fat oil and grease causes blockages in the pipes.

Increased concrete for roads, housing and artificial grass leads to increased runoff.

At times of heavy rainfall the sewer system finds it difficult to cope with the amount of water and waste.

Combined Sewers have overflows which act as release valves to allow some of this diluted excess stormwater in to a nearby river, preventing local flooding.

Combined Sewers take the dirty water away from your home where it is joined by rain water from roads and roofs.

36,000 kilometres of sewers take waste away from homes and businesses. They were built over 100 years ago in a very different time.

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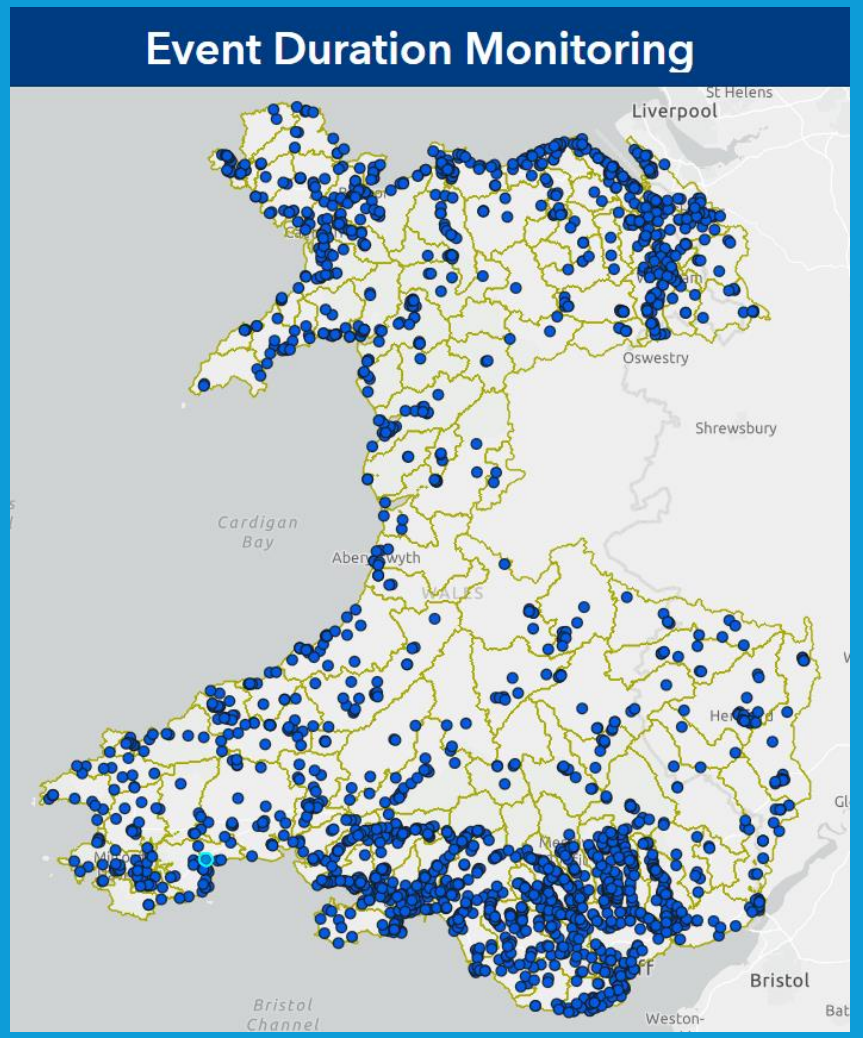
Sewerage Network & SOs

- In Wales, NRW permit these discharges in certain conditions – **to prevent sewer flooding**
- We have monitors on **99.5%** of our SOs (more than 2300 assets)
- Welsh Water **monitor these discharges** and **report** to our **regulators & publish** on our website
- **Event Duration Monitoring**
- Spills cannot be reported in advance – they are unplanned.



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How do we determine our investment plans?

Welsh Water have regulatory obligations under certain legalisation that protect the environment

(Habitats Regs, Urban Wastewater Treatment Regs, Bathing Water Regs, Water Framework Regs etc)

These regulations protect different aspects – people bathing, special areas of conservation etc

NRW's environmental monitoring are compared to these regulations can help determine if improvements are needed to meet environmental targets.

This evidence-led approach can result in investment where the improvement required is due to the operation of our assets.
These improvements are proposed, planned, costed and then go through a determination process with OFWAT every 5 years.

Investment outside of our regulatory obligations is difficult to secure

Solva's Wastewater Catchment

- Solva network is a combined system, carrying both rainwater and wastewater
- Solva catchment is pumped to the WwTW via a SPS near the harbour
- There is some extra mitigation at Solva to help protect homes.
- The SPS is not currently passing forward the required flow. Options for solution are being reviewed.
- This SPS has received recent upgrades to optimise equipment control, electrical set up and instrumentation.

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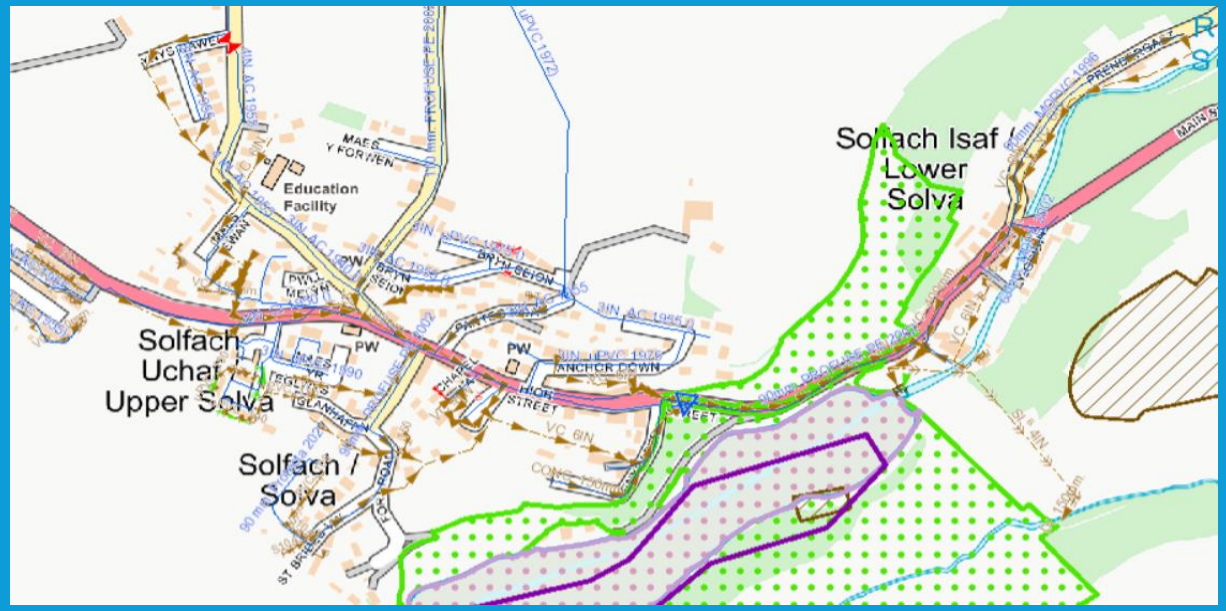
Storm Overflow at Solva SPS

- Solva SPS has a SO
- The SO operated 19x between 1st January and 31st October 2023 - 17x in Jan & Oct
- We issue notifications to local stakeholders



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Solva Wastewater Treatment Works

- Solva WwTW discharges treated effluent into the Solva river
- Solva WwTW is monitored against Ammonia, BOD and total suspended solids and complaint with effluent quality
- Solva WwTW historically accessed via tunnel – no longer in use
- Ongoing process to acquire a new access route, presenting operational challenges
- Alternative access has included the use of helicopters and the coastal path
- Recent helicopter drops in 2023 have enabled;

- Site refurbishments
- Delivery of critical spares for storage on site
- Delivery of summer mitigation equipment

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Storm Overflows and Bathing Waters

- There are many aspects that can impact bathing water quality – open environment
- Bacteria comes from various sources such as rural, private, surface run off and wastewater +
- Current Bathing Water alerts to ~1/3 of BW in Wales, including Solva
- These are not the same as pollution incidents
- Bathing Waters tested for levels of 2 types of bacteria, by NRW (May-Sept)
- Pembrokehsire County Council undertaken monitoring at Solva during 2023
- We share our notifications with eNGOs+, and SAS who share via their platform*
- **New Storm Overflow map pending January 2024 – within 1 hour near real time reporting**

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Near real time Storm Overflow Map

~350

Phase 1:
January 2024
Bathing waters and high amenity sites

>2300

Phase 2:
March 2025
All storm overflows

What this is

- Gives our customers visibility of our asset operations
- Source of information

What this isn't

- Advice on swim safety
- Confirmation of bathing water quality

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How can communities help?

- **Something doesn't seem right?**

Please let us know - ***0800 085 3968***
or online here - with photos and location

- **Let's Stop the Block** - only flush the 3 Ps

>50% of pollution incidents are from blockages

- **Connect Right**

Investigate potential misconnections

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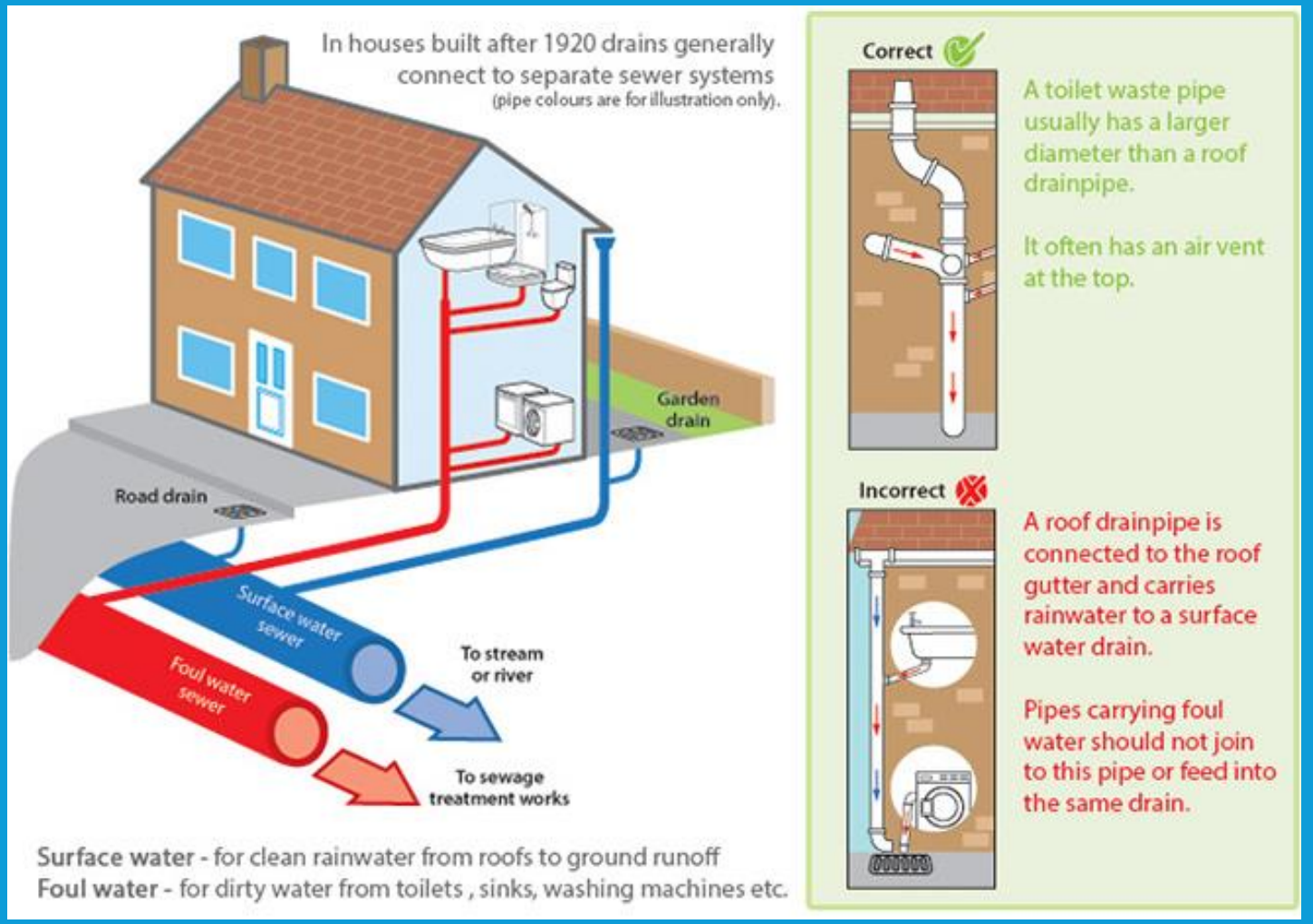
Further collaborative opportunities?

- Assess surface water misconnection which may be connected to the public foul sewer
- If we could remove or reduce these types of connections it could help reduce the flooding and pollution risks
- Removing misconnections from foul to surface water also reduces the impact on the environment and possible pollution incidents
- Spot surface to foul? Let us know!



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Next steps for Welsh Water and Solva Community?

- Welsh Water to continue to secure alternative access to WwTW
- Flow team to assess options for increasing flow from SPS
- Welsh Water to undertake assessment of impermeable areas and hydraulic modelling for flow removal opportunities within Solva catchment
- Solva SPS SO investigation to determine environmental impact by March 2027
  Outcome of investigation will determine next steps
- Open to assisting SCC with communications re misconnections, surface water removal options, how we can support residents to check their drainage
- SCC to apply for bathing water designation at Solva Harbour?

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Next steps for Welsh Water and Solva Community?
Update

- **Welsh Water to undertake assessment of impermeable areas and hydraulic modelling for flow removal opportunities within Solva catchment**

Flow assessment surveys undertaken during November 2023

- Look and lifts as well as CCTV of the catchment
- Two main areas of infiltration located – *full report pending*

- Connectivity surveys to be undertaken in coming weeks, involving SW drainage

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Community Fund

- We have launched the Welsh Water Community Fund to give something back to the communities we are investing in – *opens periodically*
- If you live in an area where work is taking place ,you're fundraising for projects to benefit the community and/or ideas that would help our systems – you could receive funding from Welsh Water up to a value of £5,000.
- For more information visit dwrcymru.com or contact communityfund@dwrcymru.com

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Thank you for listening
Diolch yn fawr

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