

Our Teifi – One Catchment

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Ffynnone Resilience Group meeting
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- Teifi better or worse than other communities.
- Where the Teifi sits within the priority investment order, with again emphasis on the lower Teifi.
- The planned level of investment is for the Teifi, and in particular the lower Teifi, i.e., already in progress, is planned for the near future (3-10 years) or is a long way off (>10 years).

How investment cycles work?

The Water Industry plans investment in 5 year cycles (AMPs). Each has a Price Review (PR) which sets our performance targets, expected costs and our bills to customers

Our last Price Review was in 2019

Needs are identified by a collaborative consortium



And then developed into a business plan = what do we need to do?

How much will it cost? Is it affordable and/or cost beneficial?

Send to OFWAT – who compares across industry, and may challenge on our targets and costs

Final determination helps decide what we can deliver.

Types of investment

Types of investment and schemes include

- WwTW upgrades – different processes, better quality effluent, bigger tanks, better screens, increased flow, energy efficiencies, sludge management
- Phosphorous removal – addition of phosphorous stripping techniques
- Network changes – pipe upgrades, flood risk reduction schemes
- Plus more including funding projects



Recent examples...

- **£3.7m** invested in Cardigan in 2021/22 to help reduce the risk of sewer flooding to the Lower Town area
- Providing **£250,000** funding and expertise to the Welsh Government for the 'Four Rivers for Life' programme, which includes the Teifi

Should we compare?

There is no hierarchy of sites or rivers without supporting evidence – Welsh Water cannot/do not pick and choose.

For river compliance, investment is driven by each rivers need.

An example is the revision of phosphorus targets in SAC rivers.

JNCC 2019, NRW 2021 reassessed compliance. This was prior to our last business plan.

So what did we do?

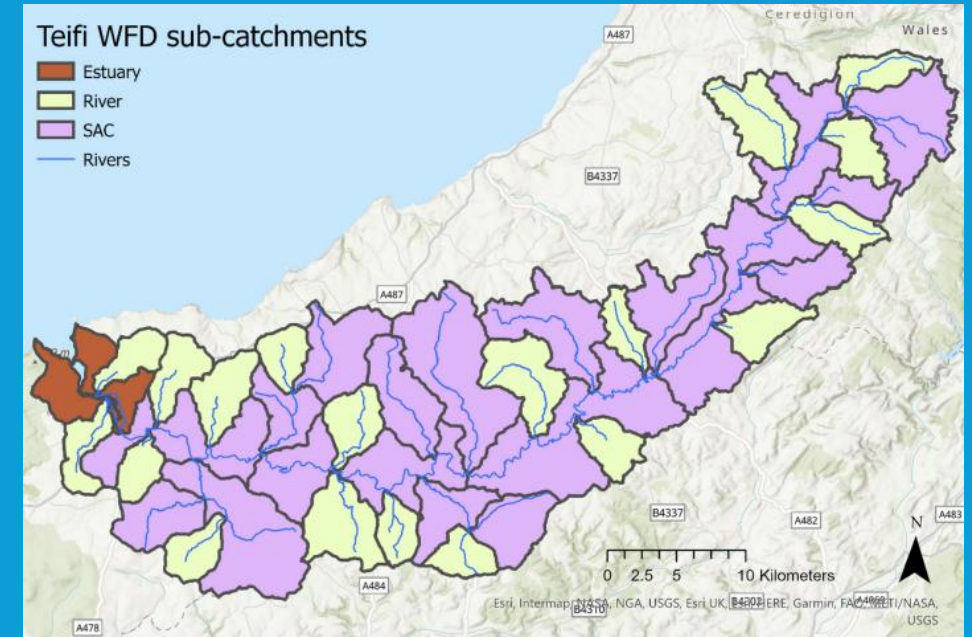
In 2021, DCWW we accelerated our modelling programme to identify sources, including our discharges, where changes are needed to restore river compliance...

Source Apportioned Phosphorous Modelling

Source apportionment modelling (SAGIS-SIMCAT) is the industry standard tool for modelling and permit setting

Welsh Water used data from multiple sources..

- River flow data
- River monitoring data
- Final effluent data
- Final effluent flow data
- CSO spill data
- Agricultural p run off estimates
- Estimates on diffuse sources

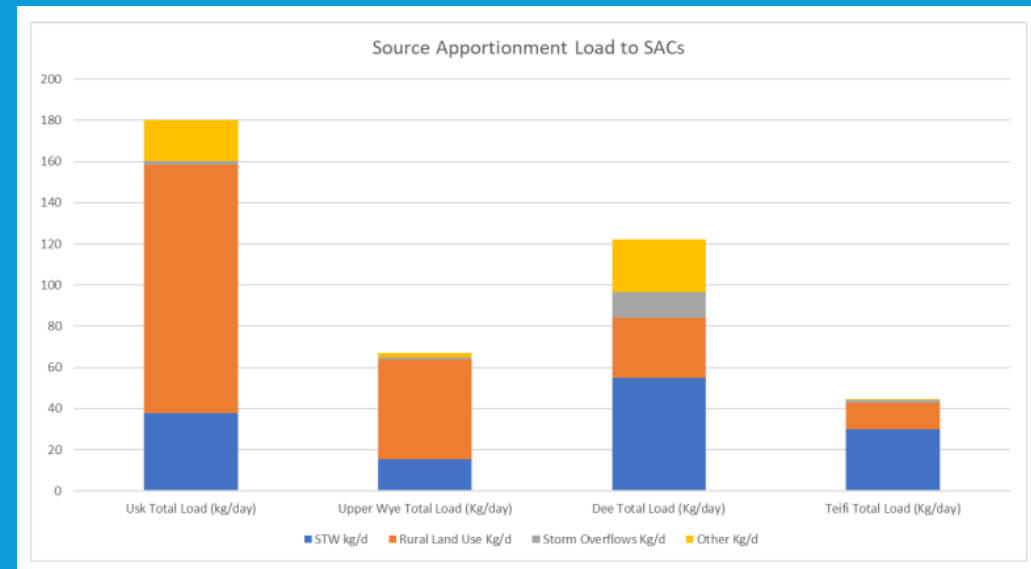
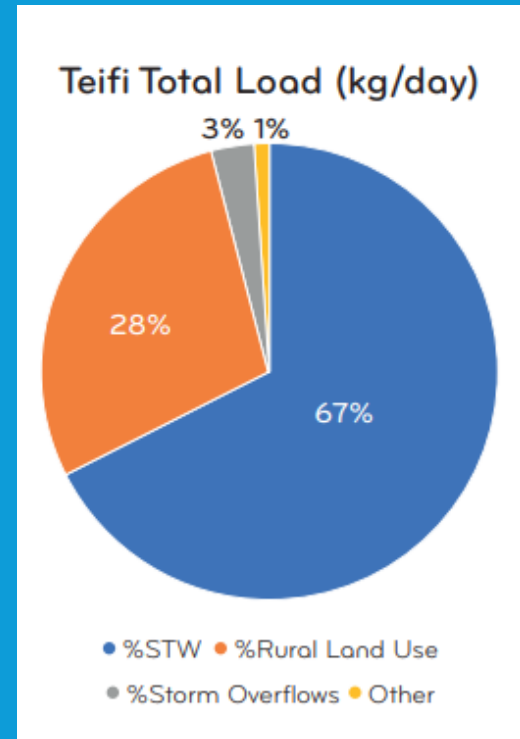


Initial modelling non technical reports were published in July 2022 (available on our website/also link on Save the Teifi website)

Note: Not all tributaries of the Teifi are part of the SAC area

Source Apportioned Phosphorous Modelling

- Detailed modelling is ongoing and will provide individual site permit limits where we need to reduce phosphorus discharged to the river.
- NRW are currently auditing the models
- NRW then plan to review our permits
- Once this is complete we can work with NRW to determine the list of schemes needed which is added to our business plan (PR24) for investment 2025-2030
- Welsh Water = approx. 67% of load, 60% of concentration



Wastewater Treatment Works on the Lower Teifi

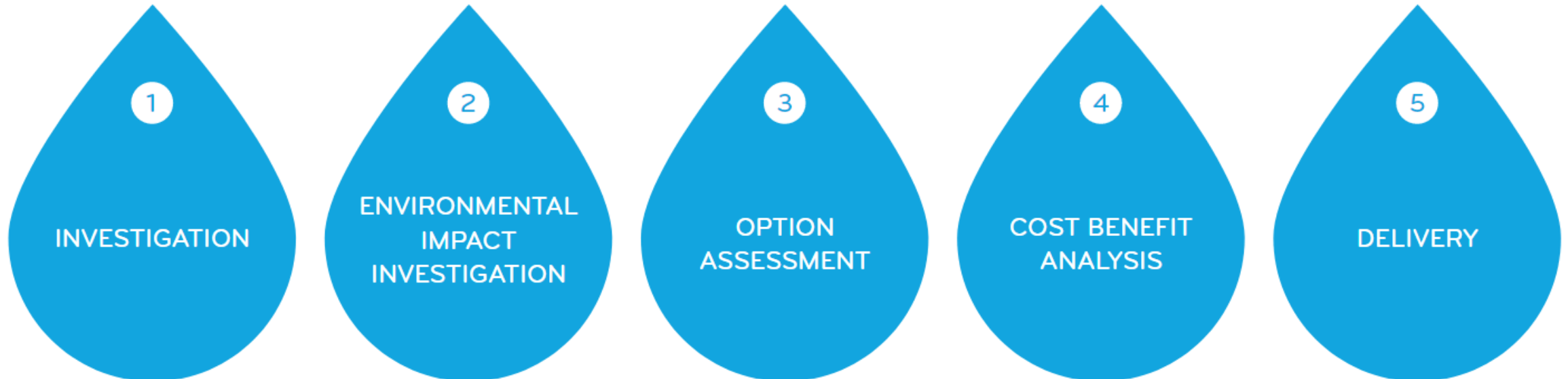
- Extra £60m enabling some phosphorous schemes (across Wales) to be brought forward from AMP 8 - 2 sites announced on lower Teifi – Lampeter and Llanbydder (full detail on how tbc)
- Using the modelling to determine AMP8 schemes needed in our NEP
- NRW review of permits for phosphorous will likely result in identifying further needs/permits

Sewerage Network of the Teifi

- St Dogmaels flooding prevention scheme – feasibility progressing, scheme pending funding
- At least 17 assets listed under SOAF to be investigated including Llechryd and Cilgerran
- Extra £40m on improving CSOs across Wales

SOAF has been developed in collaboration by environmental regulators and the water industry to provide a process of assessment and prioritisation.

We will investigate every CSO by 2027



SOAF example

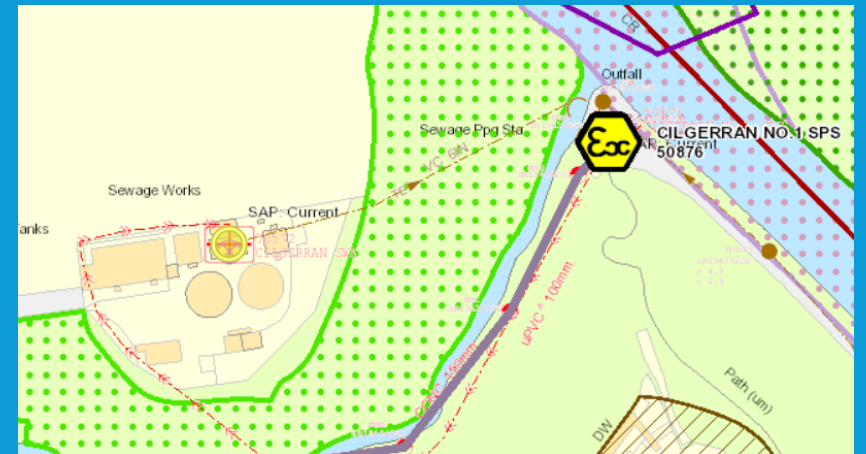
Multiple assets under investigation on the Teifi including lower Teifi, e.g **Cilgerran**

Cilgerran WwTW storm overflow - already progressing, flow to treatment increased...

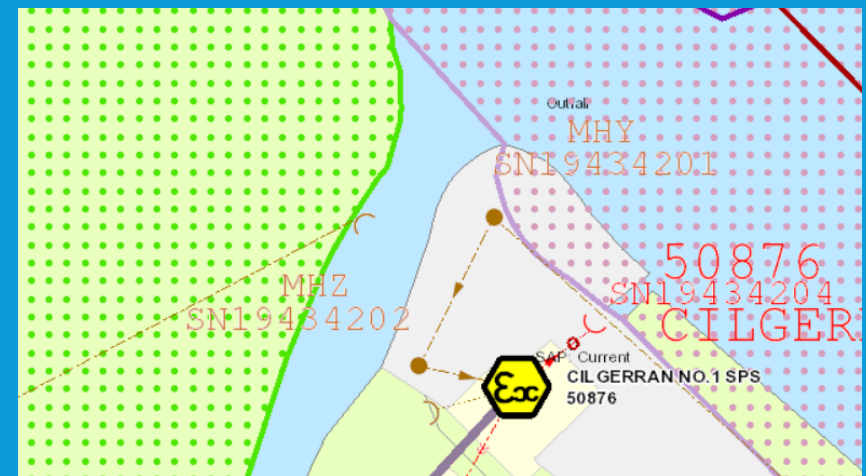
Cilgerran SPS - SOAF stage 1 started, Root Cause Analysis by early 2023.

Next steps dependant on findings...

Cilgerran WwTW Storm overflow is intermittent
Note: final effluent = 24 hours per day



Cilgerran SPS overflow is intermittent



AMP 8 (2025 – 2030)



- Phosphorous removal schemes/permits in AMP 8 (2025-2030)
 - Multiple locations to be proposed following modelling audit sign off from NRW
 - Further discussion following review of permits project by NRW (Spring 2023)
 - Business Plan submitted in Autumn 2023 –Welsh Water then await full determination as mentioned earlier...

- Cardigan WwTW – replacement of treatment process type due to salt water intrusion
 - Treatment capability/bacteria impacted by salt water causes process to blind up
 - Attempted to remove infiltration from the network first
 - NRW initial enforcement notice complete
 - Trialled alternative process options
 - Scheme going through feasibility of a complete re-design

Other Commitments

- Real time alerts within 1 hour for CSOs by 2025
- Bathing alerts within 1 hour by Dec 2023, **all year round**
- Understand the environmental impact of all our CSOs by 2027
- Find solutions for those causing environmental harm



In Summary Developer Services/Planning

- Continue to engage and support the formation of the Nutrient Management Boards (NMBs)
- Work with stakeholders & NRW to establish approach to short term mitigation options.
- Progressing work on nutrient trading platform trial on the Usk
- WwTW solutions may not always be feasible and appropriate – other sustainable solutions are integral.
- NRW feedback from review of permits process **fundamental** to understanding where we will need to invest in P removal.

First Minister areas of intervention

1. NMBs & fit for purpose governance and oversight arrangements
2. Enabling NBS
3. Identify and implement appropriate short-term solutions
4. All-Wales nutrient calculator
5. Consolidated menu of potential mitigating actions and interventions
6. Catchment consenting
7. Platform for nutrient offsetting and exploring potential for nutrient trading
8. Long-term roadmap supported by action plan

Bathing Water Quality vs Ecological Good Status

In the UK guidelines around river water quality are called 'Water Framework Regulations' and they classify what a 'good' or healthy river looks like.

This is not the same as Bathing Water quality.

We disinfect wastewater treatment works effluent near bathing waters but not usually in rivers. We disinfect to reduce the risk to humans bathing, but the river ecology doesn't need this to be protected.

A river being healthy for wildlife is different to being suitable for people to swim in.

There are no designated river bathing waters in Wales.



How you can help

- **Let's Stop the Block** – Only flush the 3 Ps (everything else goes in the bin) *wet wipes*
- **Separate systems / RainScape** - rain water back to the environment and wastewater to the sewer.
- **Connect Right** - Investigate potential misconnections
- **Something doesn't seem right?** – Please let us know via our 24hr phoneline 0800 085 3968.



Just a reminder



- We have launched the Welsh Water Community Fund to give something back to the communities we are investing in.
- If you live in an area where work is taking place – and you're fundraising for projects to benefit the community – you could receive funding from Welsh Water up to a value of £1,000.
- For more information visit dwrcymru.com or contact communityfund@dwrcymru.com

dwrcymru.com



Thank you for listening Diolch yn fawr

Overview video available [here](#)

