

Mainstreaming Nature-based Solutions in Wales

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Mainstreaming NbS to deliver greater value for society and the environment



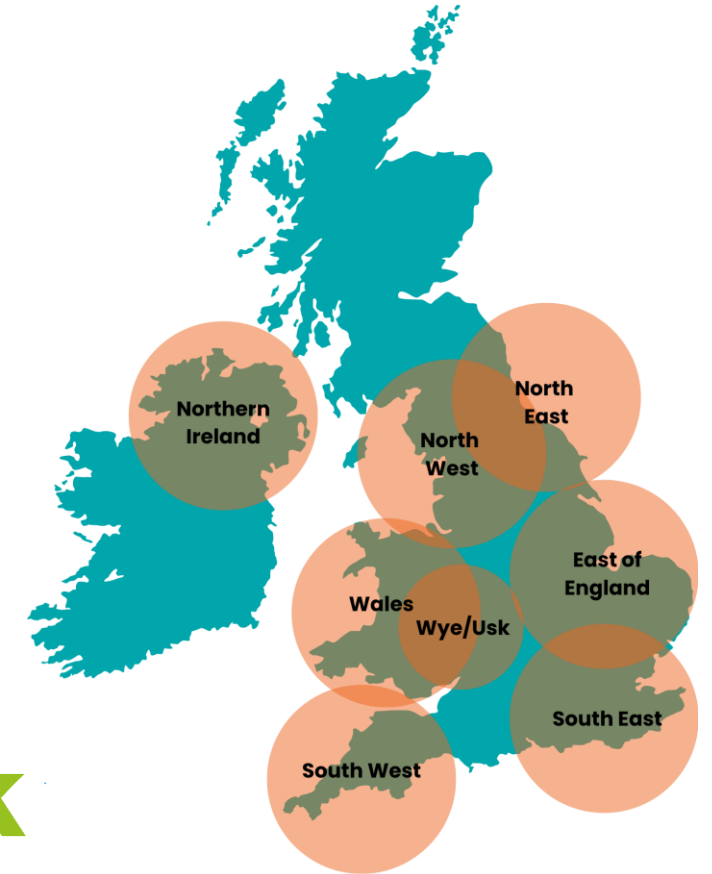
Programme outcomes

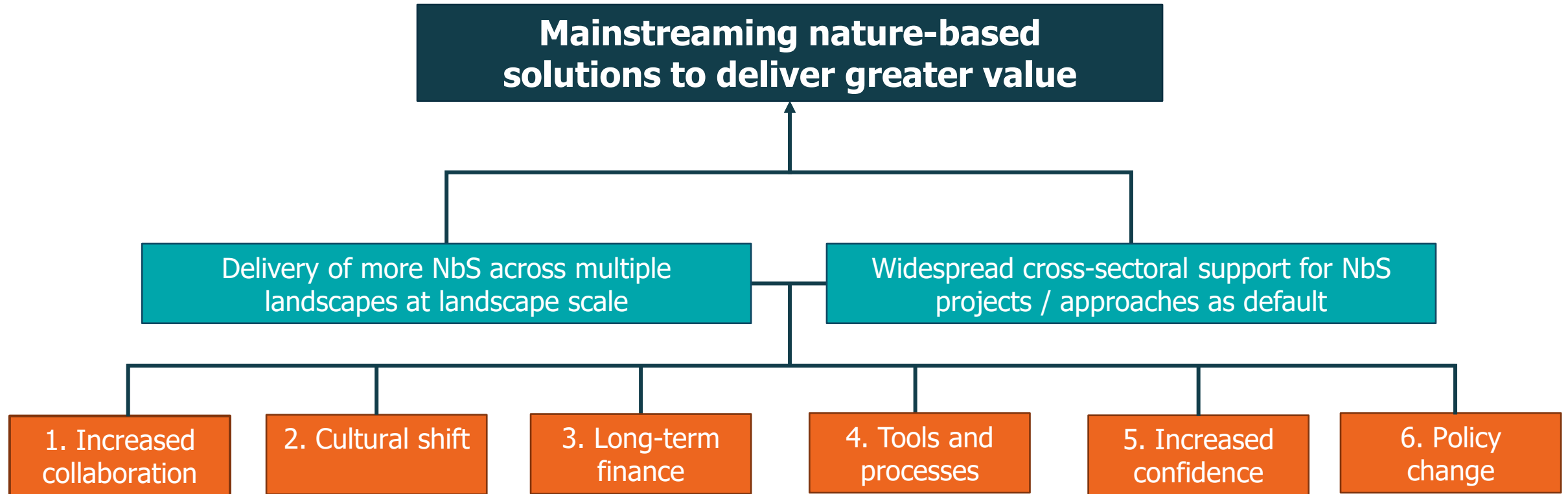
- ✓ Greater adoption and transition of NbS into business as usual
- ✓ Changes enabled and accelerated through policy and regulation
- ✓ Creating a common value framework
- ✓ Maximising multiple benefits
- ✓ Standardised tools and processes
- ✓ Wide collaboration, engagement and dissemination
- ✓ Driving a pipeline of transformational NbS projects (water sector and wider)

Multi – sectoral expertise

Overcoming the barriers to NbS delivery

Real-life implementation through regional tests





Afonydd Cymru's Role in Mainstreaming NbS in Wales



Drive a consistent approach to valuation and options appraisal to fairly represent multiple benefits of NbS



Seek opportunities for better collaboration across multiple sectors and incentive mechanisms to do so



Supportive regulatory frameworks to enable outcome-based, flexible delivery



Joined-up catchment vision in delivering integrated solutions



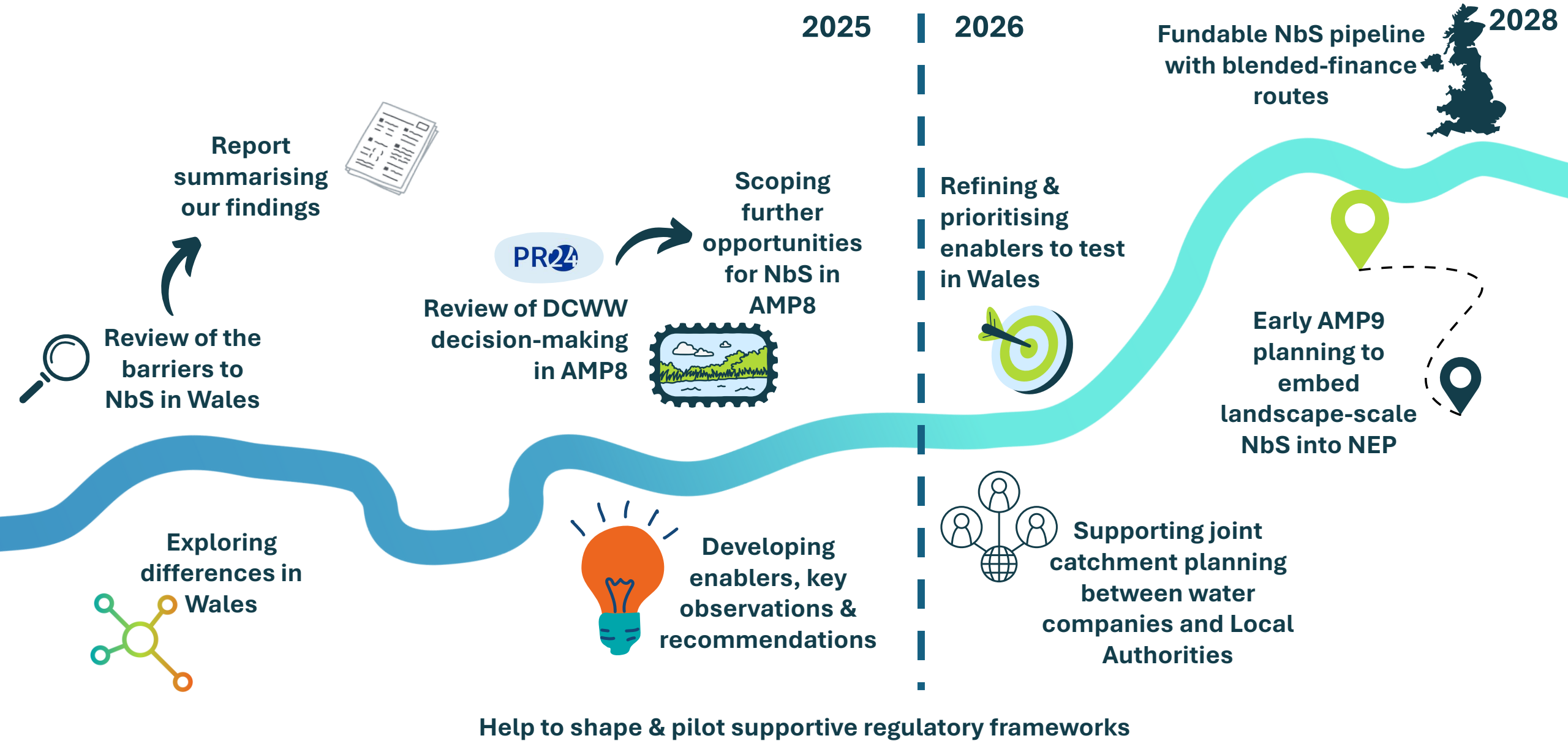
Work with the funding and finance workstream to unlock sustainable, long-term funding to deliver landscape-scale solutions



Facilitating changes with Welsh Government, working across water, biodiversity and agriculture



Wales connector - the story so far...



Dŵr Cymru Welsh Water

- **Dŵr 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)**

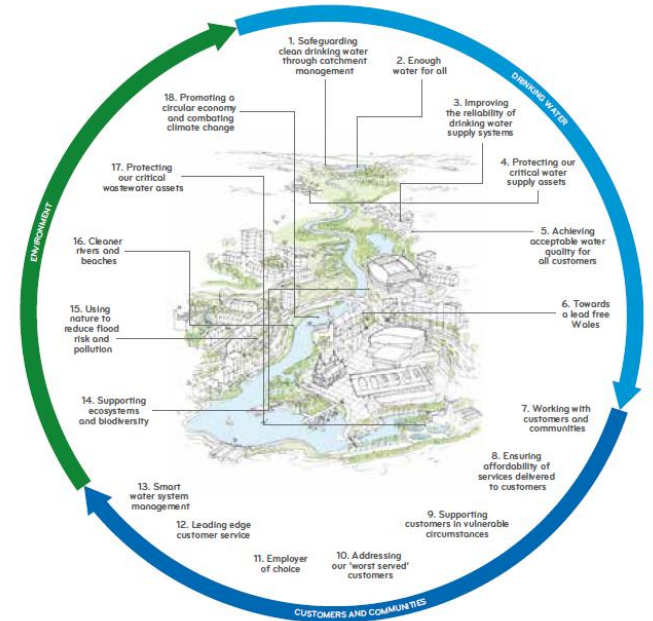
- **Not for Profit:** all profits are reinvested for the benefit of our customers



Why do we need to deliver Nature based or Green solutions?

Areas for why:

- **Dŵr Cymru Strategic responses 2050**
- **Business Plan**
- **Biodiversity commitments**
- **Senedd & NRW**
 - **Environment (Wales) Act 2016**
 - **Future Generations (Wales) Act 2015**
 - **SMNR**
 - **Water Act 1991 Special Measures**
- **Reporting**
- **AMP9 DWMP**



Wastewater Financial commitments:

NbS Only schemes in FD = 73 schemes with BP = £17.98M and FD = £17.52M

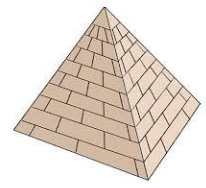
- 51 of the sites in special area of conservation (SAC) Phosphorus
- 22 sites with P removal

PCWWD5d for Storm Overflow = 12 schemes delivered & 10.22 ha Wetland area delivered

Water Financial commitments:

- Peatland restoration: £13.712m BP
- Biodiversity: £1m BP
- Raw water – England green solutions: £3.555m BP
- Water protection – NRW: £12.337m BP





1. Green First Solution Hierarchy

2. Biodiversity embedded into PR29 & DWMP future planning cycles

3. Multi-capital accounting & Green first investment model

4. Biodiversity + Follow SMNR principles

5. Biodiversity + Future Generations Act

6. Partnerships working – improve our ability to value wider benefits

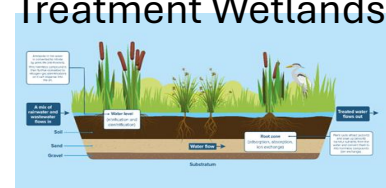
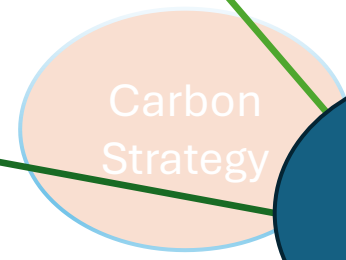
7. Develop Valuation tool

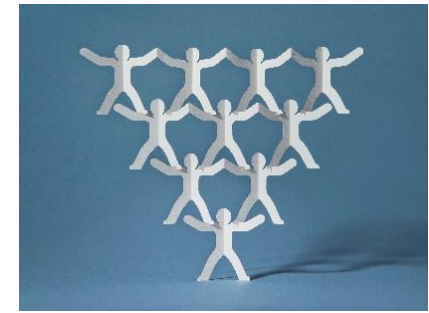
8. Explore Alternatives to dosing chemicals i.e. Treatment Wetlands

11. Harness latest research of partners, institutions UKCIP, CWA etc

10. Continue dialogue with our customers & Stakeholders on collaborative opportunities for SUDS

9. Harness regulatory support wider use & find innovative solutions for surface Water management





Dŵr Cymru Welsh Water – Challenges & Changes needed

- Make our needs/ challenges known - share outside the business
- More & Better engagement between local authorities, NRW, NGO's
- Involve wider stakeholders beyond OFWAT, NRW, Designer, Local authority and DCWW; use forums, groups, and regional bodies for quicker decisions
- Fund outside of DCWW – other funding routes
- Catchment scale – Co design at much earlier stage - got to be affordable for our customers
- Take more risk with less evidence and speed up, identify key timelines
- OFWAT agreed to swapping & multi-Amp delivery – need to raise them and develop clearer mechanism for change
- Capture better evidence of barriers - to remove them, needs to be technically achievable
- Consistent approach to NbS optioneering & valuation - needs to be auditable

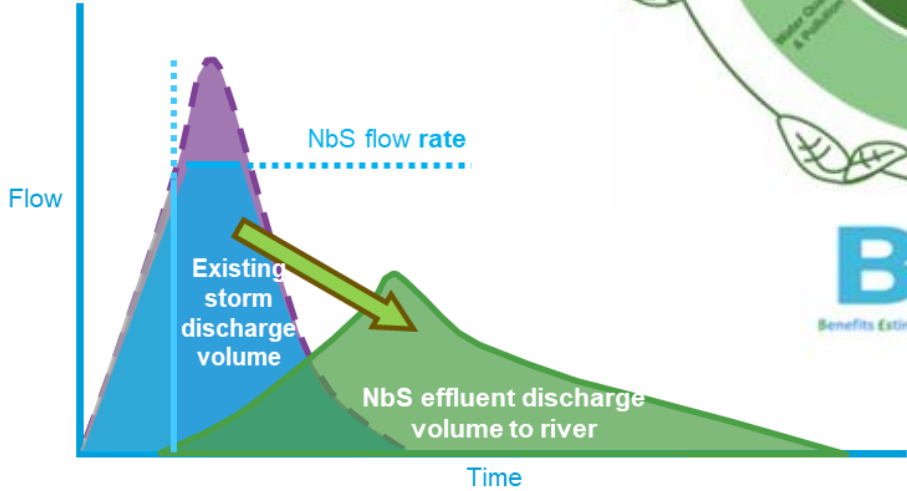
Early-stage funding for co-design and NbS programme development is essential to ensure delivery of effective, practical, and collaborative NbS

Case Study: Luston Constructed Wetland



Dŵr Cymru Welsh Water

Case Study: Pont-Y-Felin



Lessons Learnt – Maintaining NbS

Design, Build & Commissioning

- Wider specialist
- Independent review
- Evidence gathering
- working with NbS future, CWA, Afonydd Cymru, Stantec, Arup

Maintenance

- Community collaboration been key
- Greener Grange - Town Council maintain
- Llanelli maintenance Community Sum – delayed handover legal agreement
- Sud Planter – handed over to customers to maintain



Outcome Technical Confidence – **is it the right technical solution**

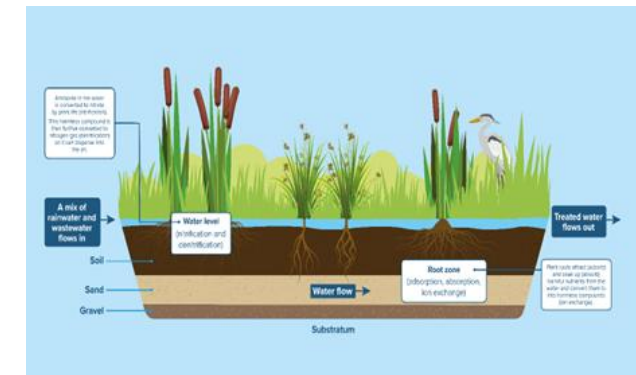
Outcome Operability – **ownership & maintenance**

Outcome Deliverability – **is their land or delivery partner**

Outcome Timeframe – **what is the needed to deliver right solution**

Outcome Multi Capital – **wider benefits valued best multi capital accounting**

Outcome Affordability – **partnership funding or trading**



Workshop discussions in groups

It's 2035 and Wales is a leader in delivering NbS

What has changed to make this happen?



Funding & finance?

Evidence, research & monitoring?

Policy & regulation?

Metrics & measuring outcomes?

Collaboration & co-delivery?

