

CIWEM UDG Annual Conference

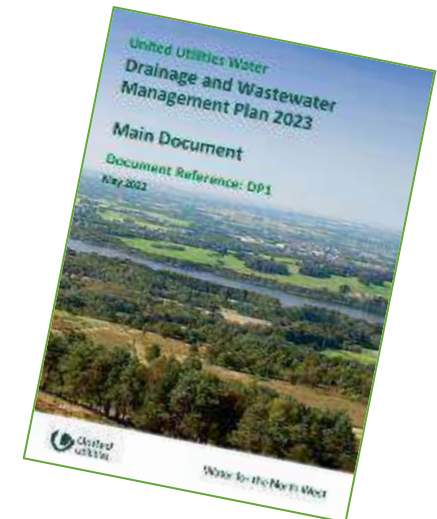
7 December 2023



Reflections on Cycle 1 of DWMP and thoughts ahead of Cycle 2



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Content

- What is a DWMP, what *isn't* it, and what *should* it be?
- Using our experiences of Cycle 1 to inform Cycle 2
- Maximising the outputs of Cycle 2







What is a DWMP, what *isn't* it,
and what *should* it be?

What is a DWMP?

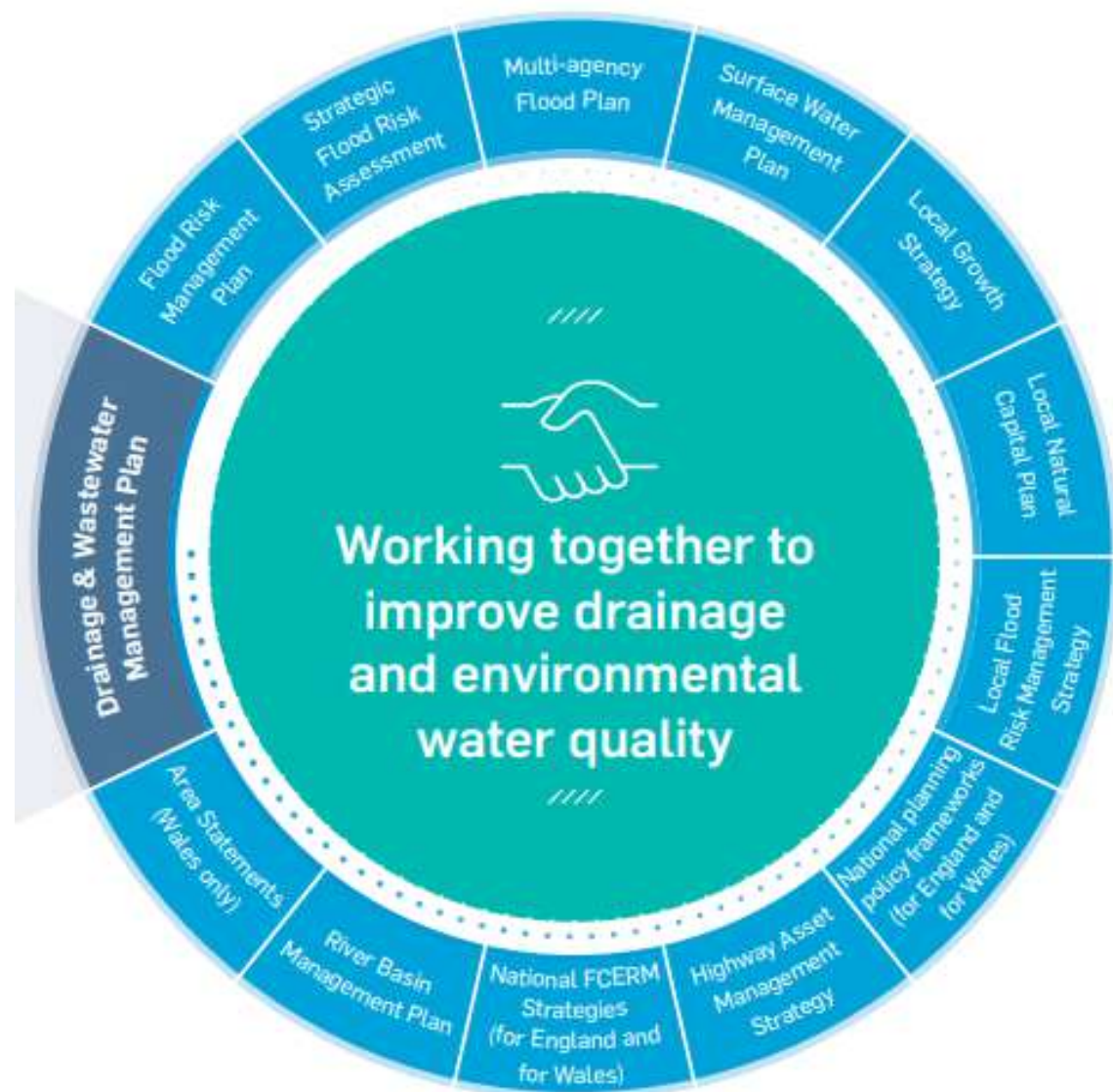
(Drainage and Wastewater Management Plan)

- Framework published in September 2018 by Water UK
- Aims for sewerage companies to set out how they intend to extend, improve, and maintain robust and resilient drainage and wastewater systems
- Built on the supply/demand approach from Water Resource Management Plans (WRMP)

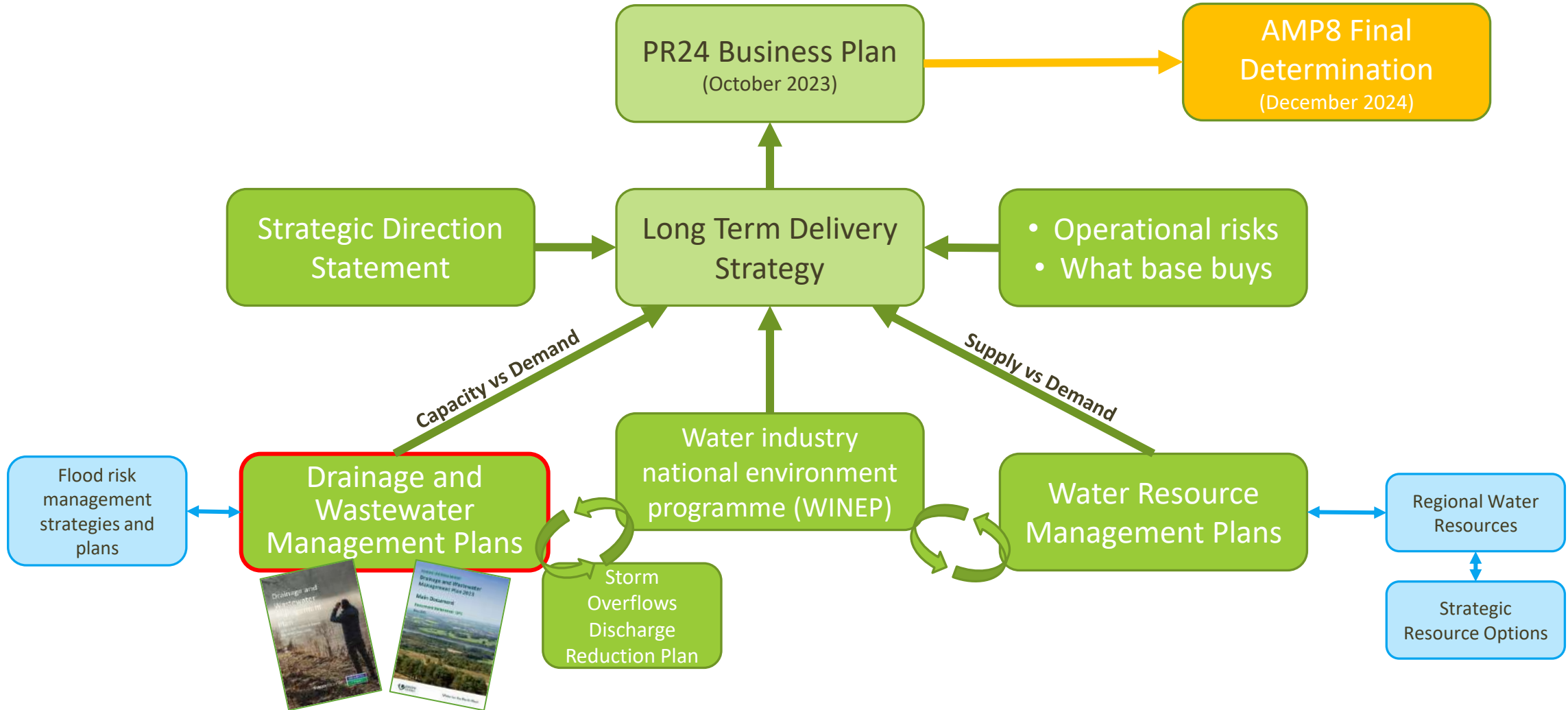
The Drainage and Wastewater Management Plan (DWMP) is a long-term plan to ensure that we continue to provide **robust and resilient** drainage and wastewater services now and in the future.

What is a DWMP?

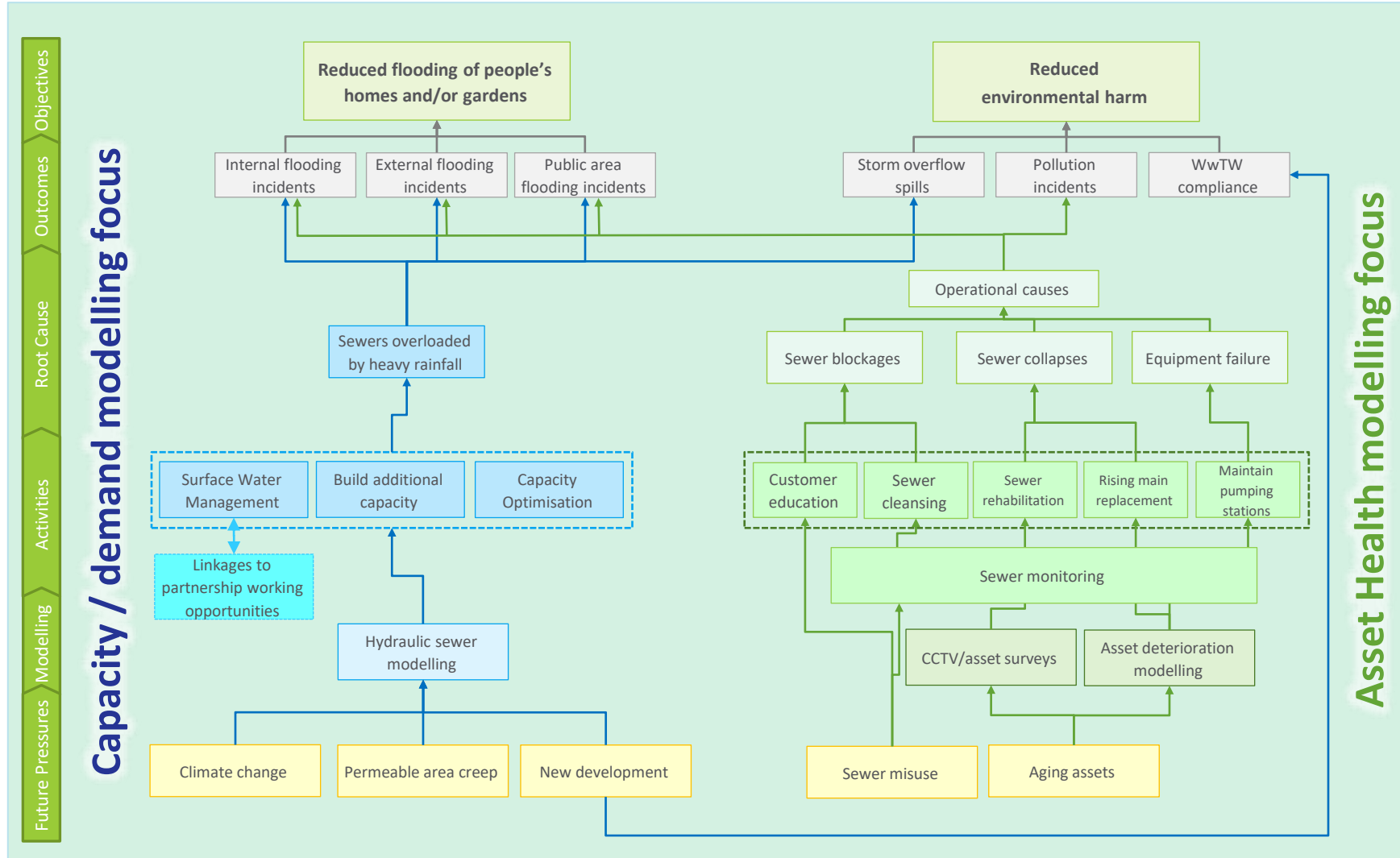
- Intention was to provide visibility of long term pressures on wastewater sewerage systems
- Focus on ‘working together’ with other organisations
- Provide a robust evidence base to support Business Plans, complementing and integrating with existing strategies and plans



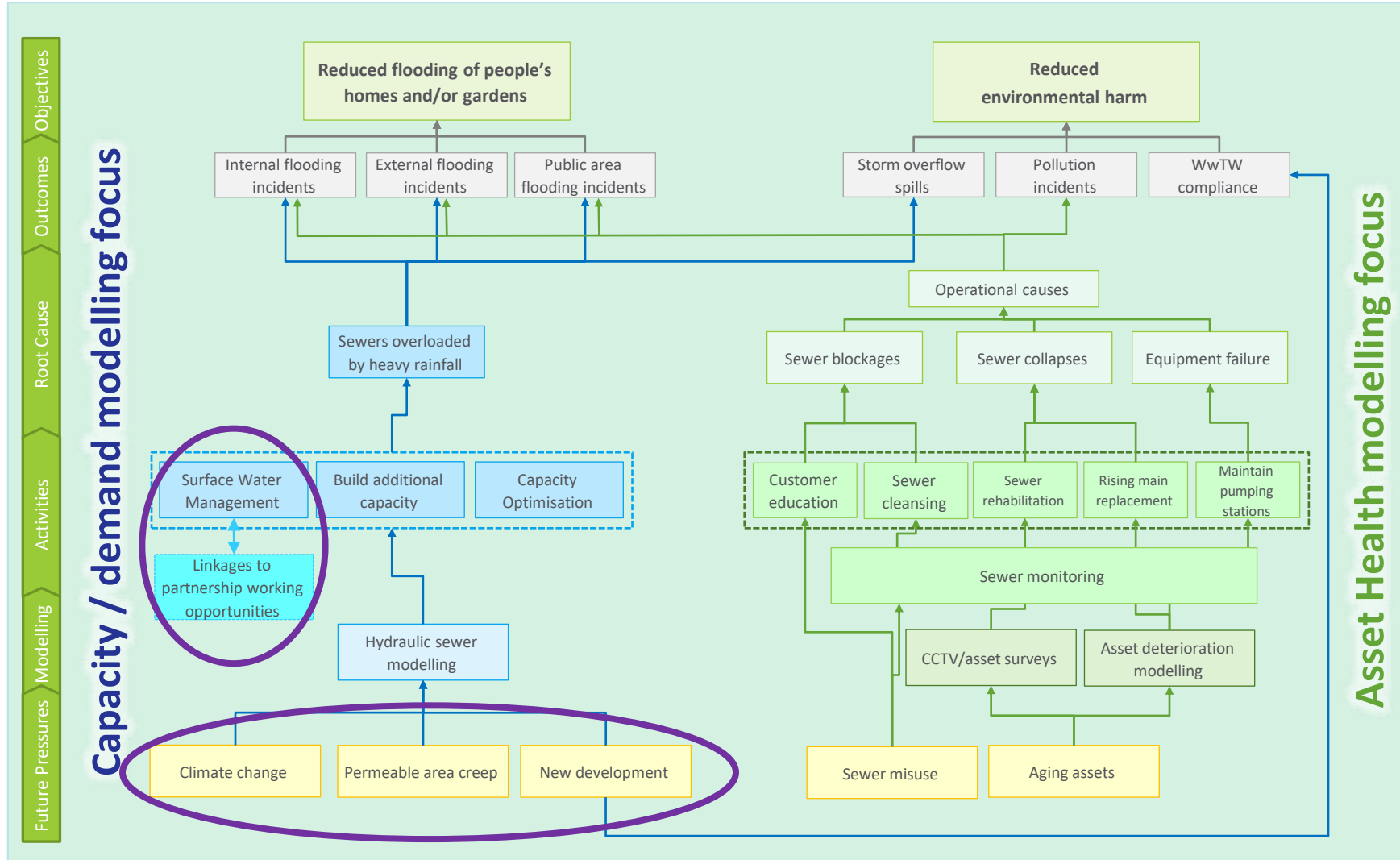
DWMP is not the only plan



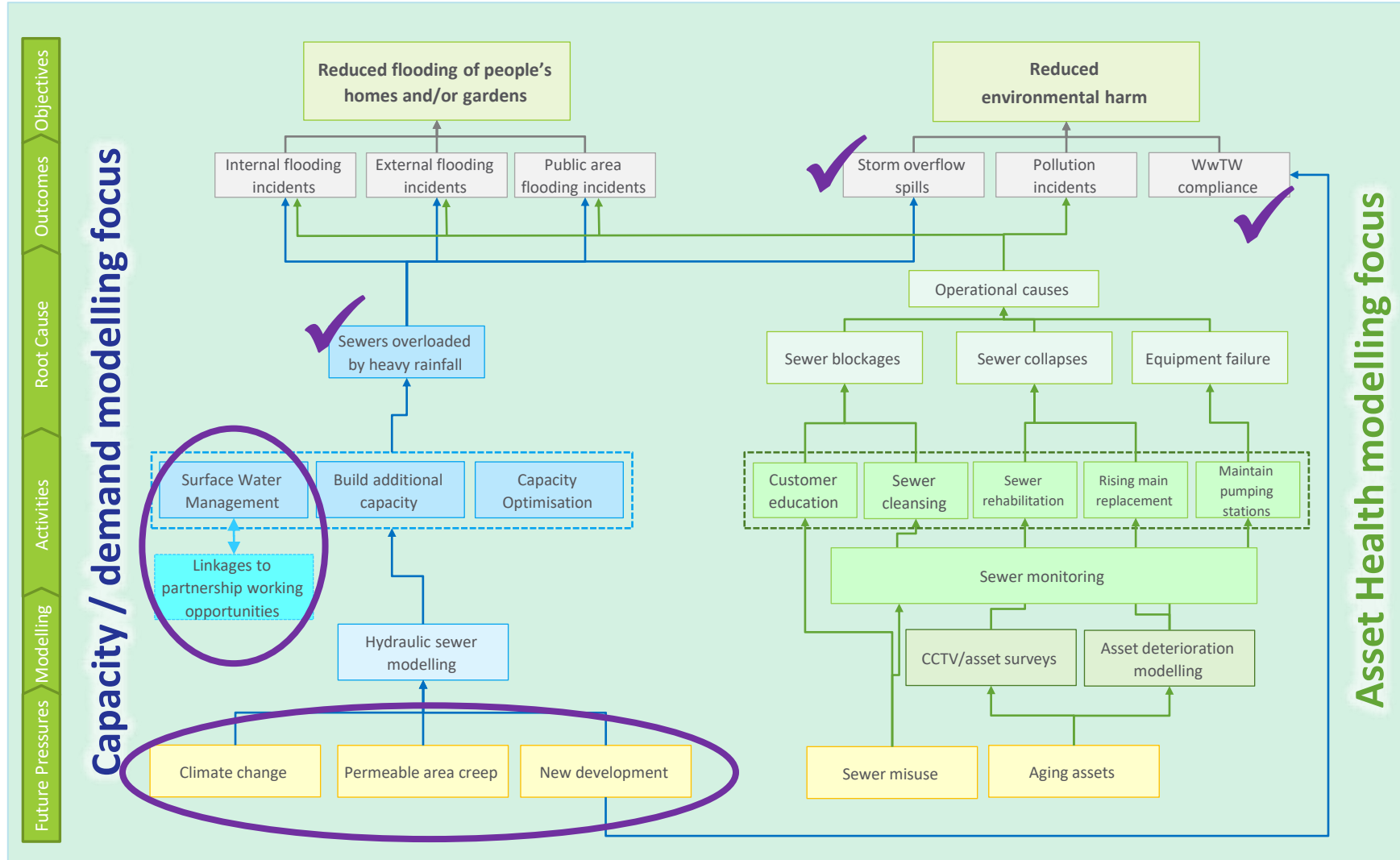
Scope of DWMP?



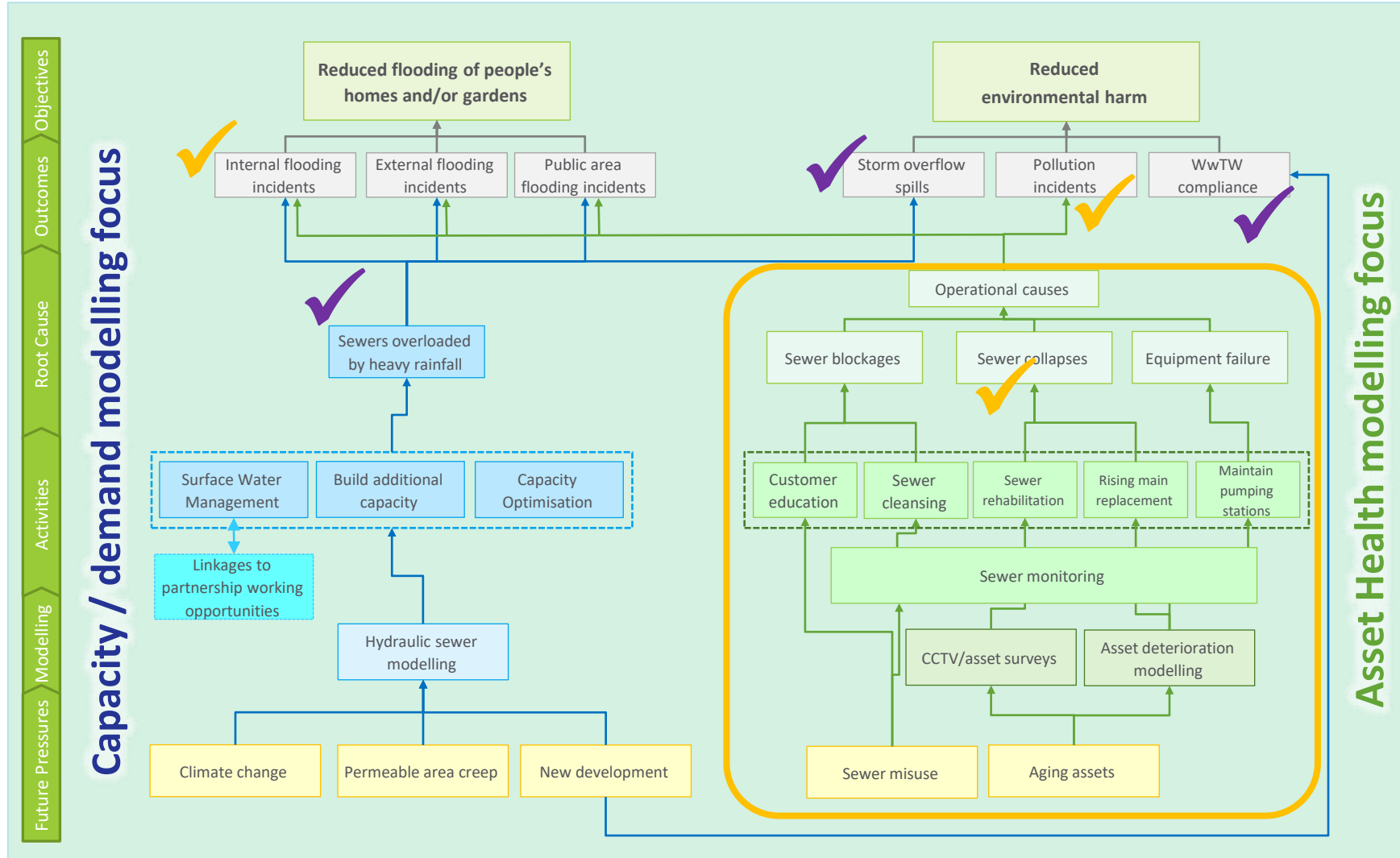
Scope of DWMP?



Scope of DWMP?



Scope of DWMP?



What a DWMP *isn't / shouldn't be*

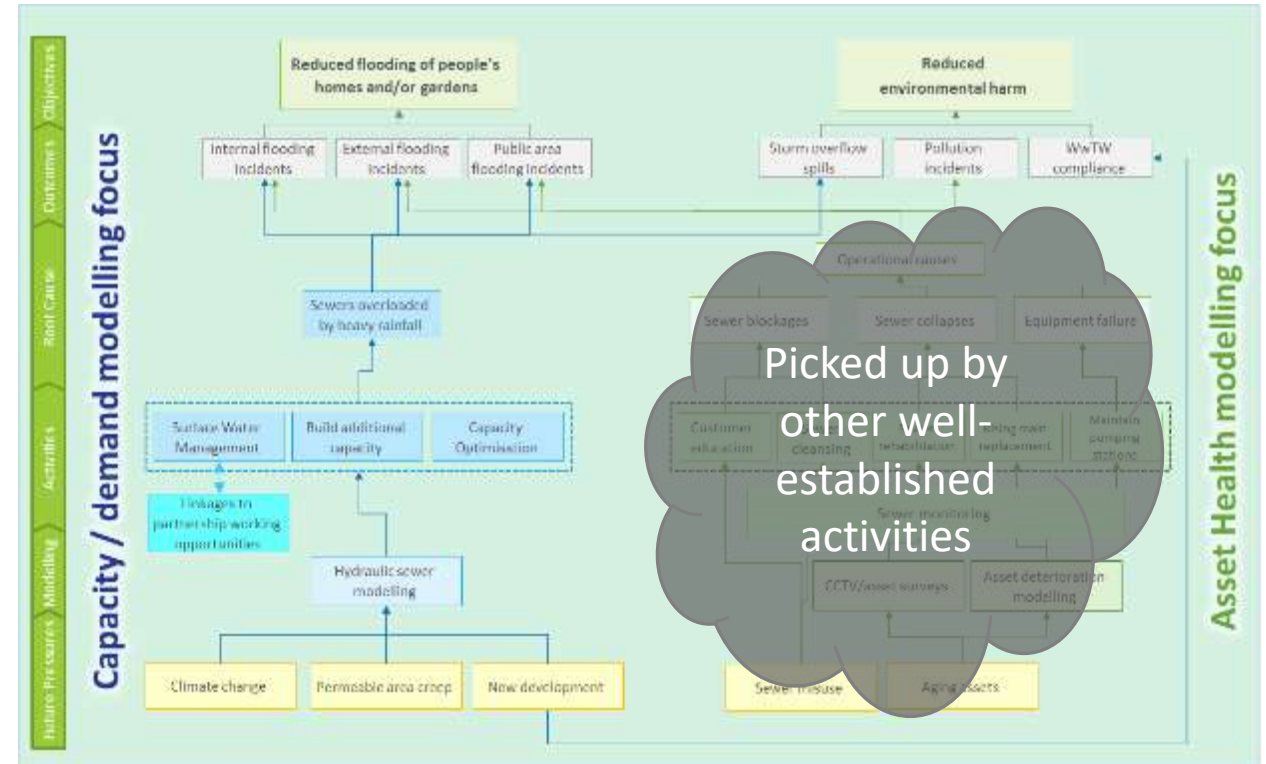


- A Water Resources Management Plan (WRMP)
- A Business Plan
- Duplication of other well-established activities
- The process was never intended to **solve the world...** (e.g. highway drainage pollution...)



What a DWMP *should* be?...

- High level assessment of current and future risk
- 25 year plan line of sight
- Focus of reducing flood risk
- Reduce environmental harm
- Evidence base to inform Business Plan process



Summary

- DWMP is not the only plan and so does not need to cover everything
- Needs to provide a robust evidence base to inform business plans...but not be one
- The biggest challenge we face is climate change, so DWMP can provide visibility to complement and integrate with existing strategies
- Feedback from our DWMP focussed on blue-green ambition and stakeholder engagement



Using our experiences of Cycle 1
to inform Cycle 2

Implementing the framework

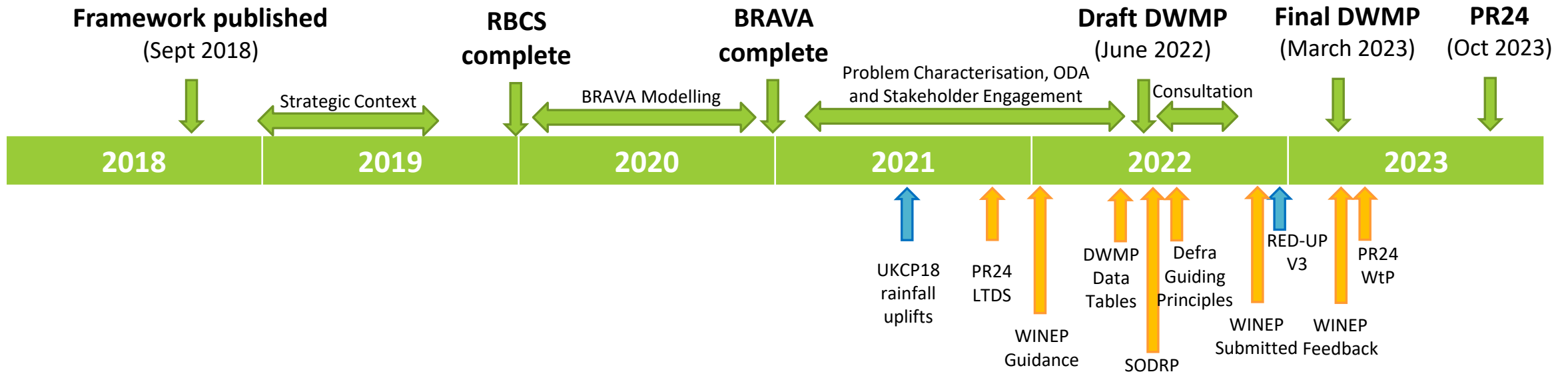
- The framework was intentionally ‘woolly’
- DWMP was an evolution of existing processes
- DWMP framework set out to avoid creating “a **cottage industry around modelling**” ...



- Along the cycle 1 journey we needed to be agile:
 - UKCP18 rainfall uplifts & RED-UP v3 published after BRAVA modelling
 - Storm Overflows Discharge Reduction Plan (August 2022)
 - Long-Term Delivery Strategy (LTDS)
 - Defra’s Guiding Principles

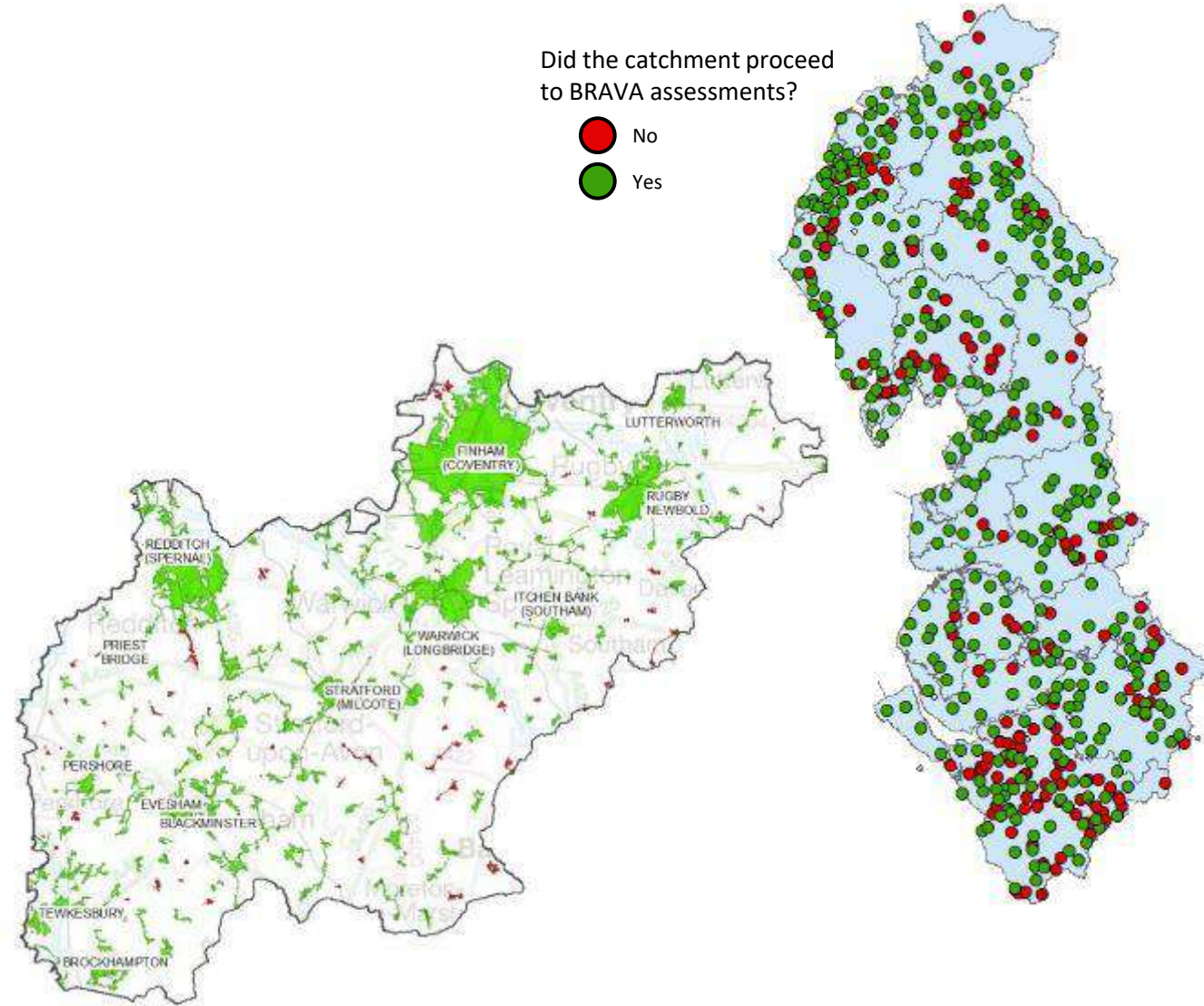
Learning by doing

- First time English and Welsh sewerage companies were asked to produce a DWMP
- The key milestones gave time to develop thinking...but also time for new requests to evolve



Learning by doing

- Implementation was supported by Steering Groups and an Implementation Group.
- As we went along the journey, we learnt a lot by doing...but sometimes too late to do rework
- Risk Based Catchment Screening (RBCS) sounded like a good idea, but 99.1% of the connected population triggered BRAVA



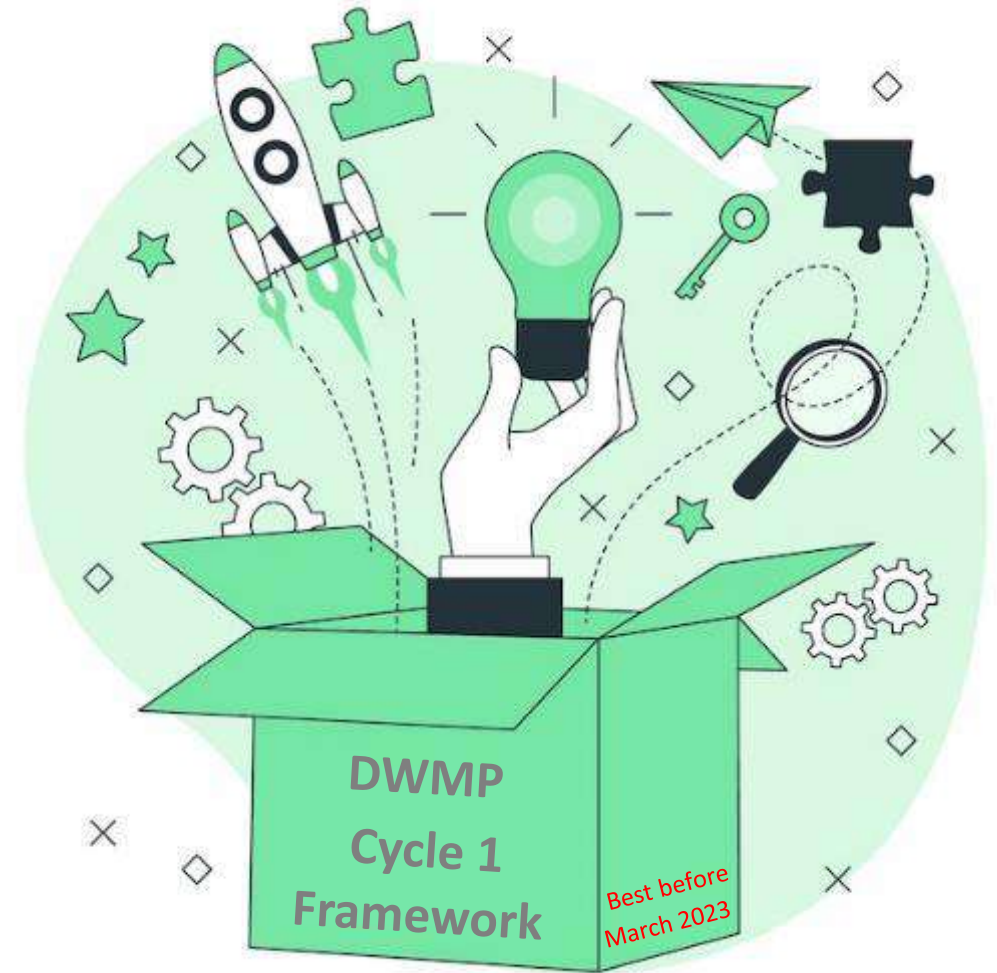
Learning by doing

- UKCP18
- Data Tables
- Outputs – document heavy
- Stakeholder engagement



Key Cycle 1 learning

- 'Optimise' > 'Reduce' > 'Build'
- Best Value Plan
- Inform a Business Plan, not be a Business Plan



Key Cycle 1 learning

- Results from online surveys with our stakeholders demonstrate;
 - **X%** read some element
 - **Y%** found the outputs useful
 - **Z%** said the DWMP is being used.....

To be updated when data available

Level 1 Non-Technical Report

“useful to see what the key risks are and how they are being addressed.”

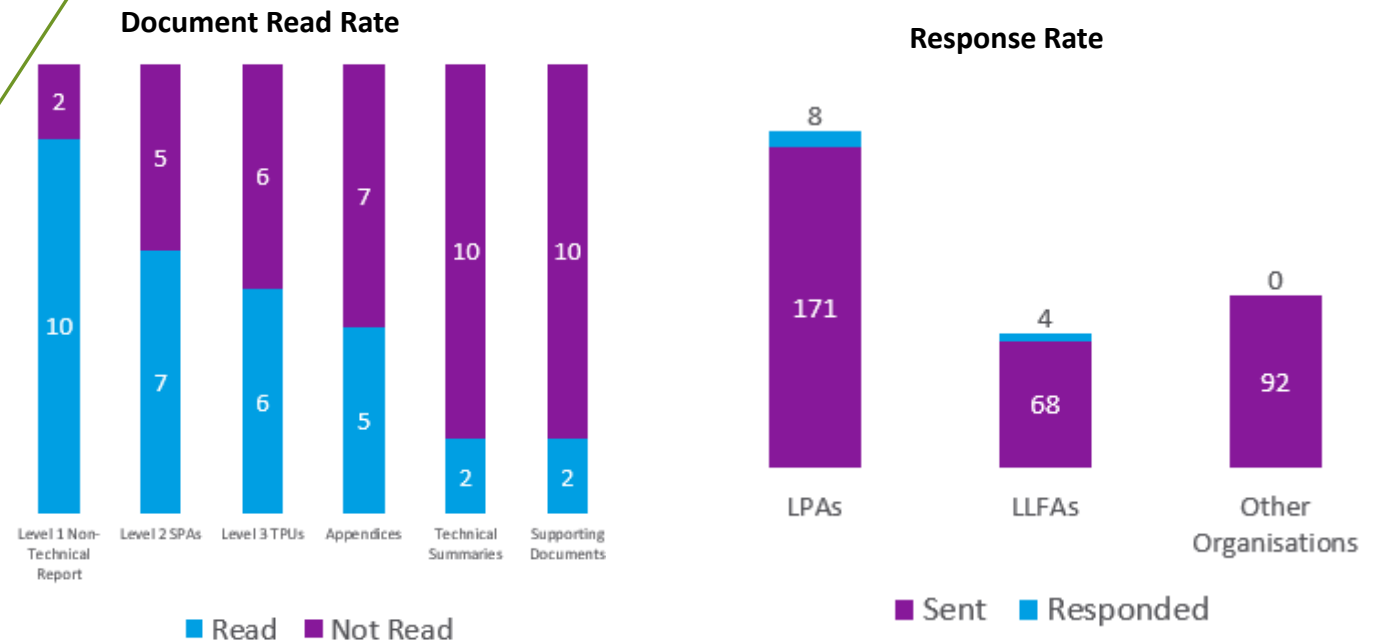
Level 2 SPA

“Highly detailed and a good evaluation of the challenges that lie ahead.”

Level 3 TPU

“Very comprehensive and detailed. Clear on which water treatment works required more investment.”

Severn Trent Non-Regulatory DWMP Feedback
(10 responses from 331 individuals representing 27 LLFAs, 86 LPAs & 12 other organisations)

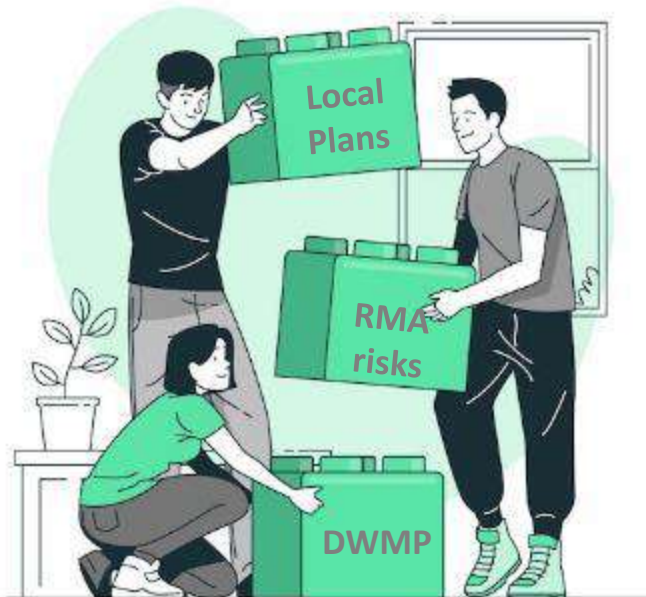




Maximising the
outputs of Cycle 2

Effort vs reward

- Cycle 2 will be statutory, with the Environment Act 2021 saying DWMP “must address in particular, the capacity of the undertaker’s drainage system and sewerage system”
- DWMPs are not cheap to produce
- We need to avoid modelling for the sake of modelling



- DWMPs are intended to be long term strategic documents
- Outputs of DWMPs should integrate with other datasets to add value

What we need to know

- We need to confirm what is the aim of a DWMP
- Need to agree Cycle 2 milestones
- Understand what non-regulator stakeholders want from a DWMP



What we need to know

- RBCS reboot?
- Streamline BRAVA and options development
- Best Value Plan needs aligning with PR29 thinking
- Output needs to inform investment decision making



Visualisation

➤ This is a typical output from Cycle 1 BRAVA



2020 Baseline Risk And Vulnerability Assessments (BRAVA) Level 3 Results Summary

Level 3 Asset Planning Grid							CP01 - Internal Sewer Flooding Risk		CP02 - Pollution Risk		CP03 - Sewer Collapse Risk		CP04 - Risk of Sewer Flooding in a 1 in 50 year storm						CP05 - Sewer Service performance					CP06 - Risk of WWT Compliance Failure						
Level 1 Catchment Name	Level 2 Strategic Planning Area	Ref	Name	Total Population Equivalent	Baseline (2020) sewer length (km)	Use the catchment WPI (WALLS)	Number of properties at risk of flooding	Comment	Number of properties at risk of flooding	Comment	Number of properties at risk of flooding	Comment	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080	2085	2090	2095	2100	Comment
Severn Trent	Central SPA	1000	WIGBORNE (BIRMINGHAM)	1,800,000	10,700.04	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	East SPA	1100	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	West SPA	1200	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	East SPA	1300	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	West SPA	1400	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	East SPA	1500	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	West SPA	1600	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	East SPA	1700	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	West SPA	1800	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	East SPA	1900	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	West SPA	2000	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	East SPA	2100	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	West SPA	2200	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	East SPA	2300	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	West SPA	2400	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	East SPA	2500	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	West SPA	2600	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	East SPA	2700	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	West SPA	2800	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	East SPA	2900	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severn Trent	West SPA	3000	WALSLEY (SUNDERLAND)	800,000	4,800.00	***	0		0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

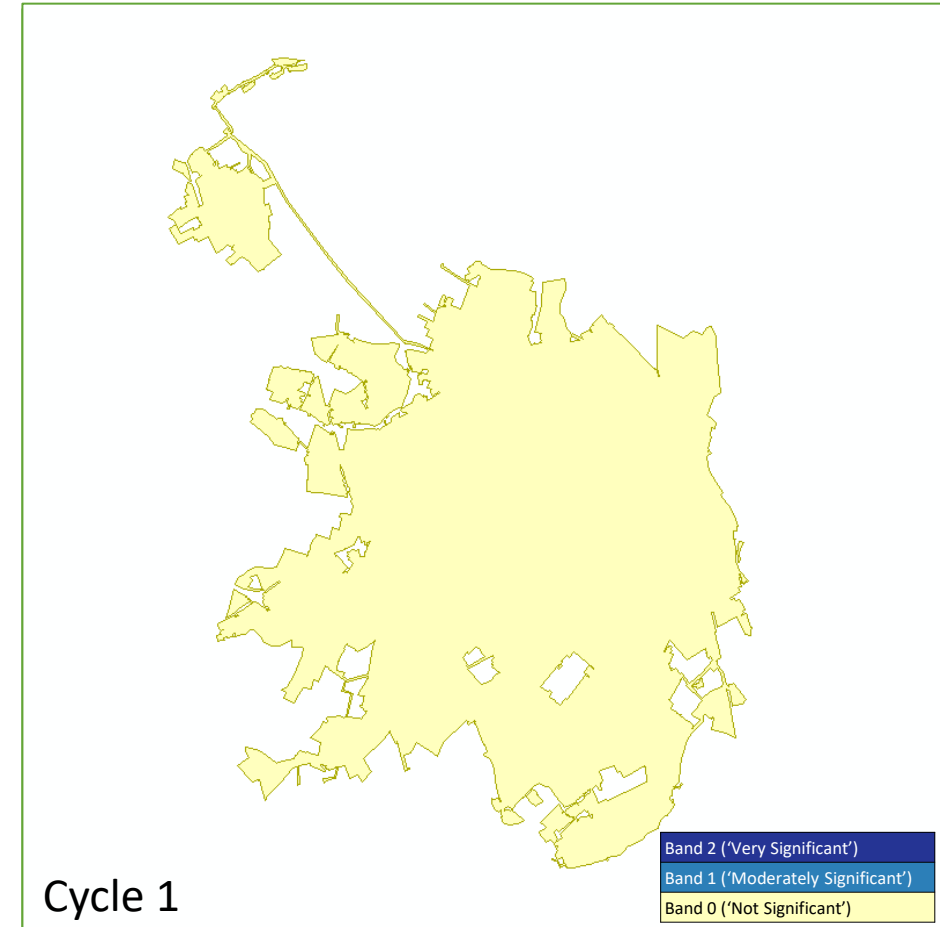
➤ Provides 3 levels of risk aligned with Common Planning Objectives

➤ Shows catchment risk deteriorating over time

0	Not Significant
1	Moderately Significant
2	Very Significant

Meaningful granularity

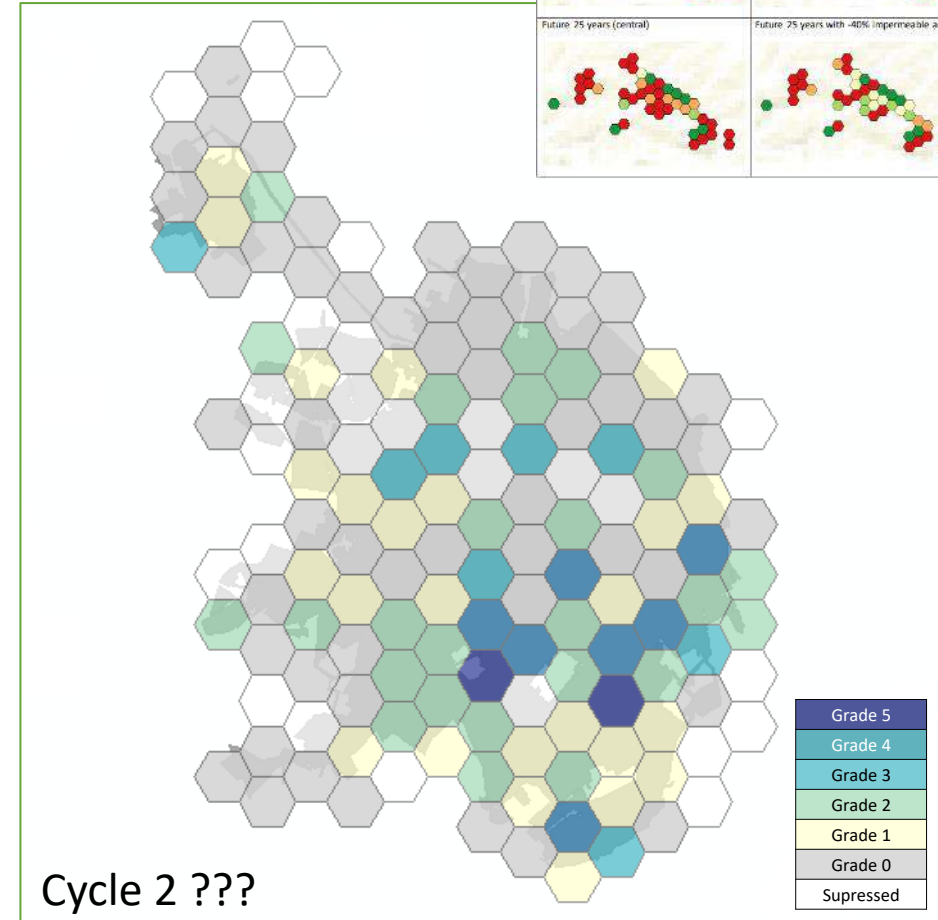
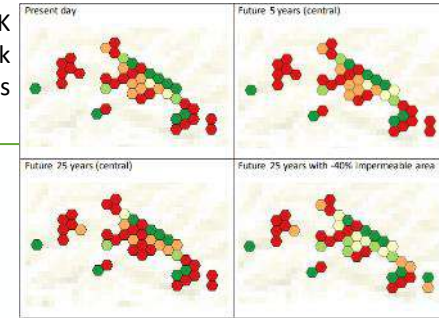
- Cycle 1 summarised catchment risk in three categories:
 - 'Very Significant' (Band 2)
 - 'Moderately Significant' (Band 1)
 - 'Not Significant' (Band 0)
- Indicates the extent of a catchment but no meaningful detail.



Meaningful granularity

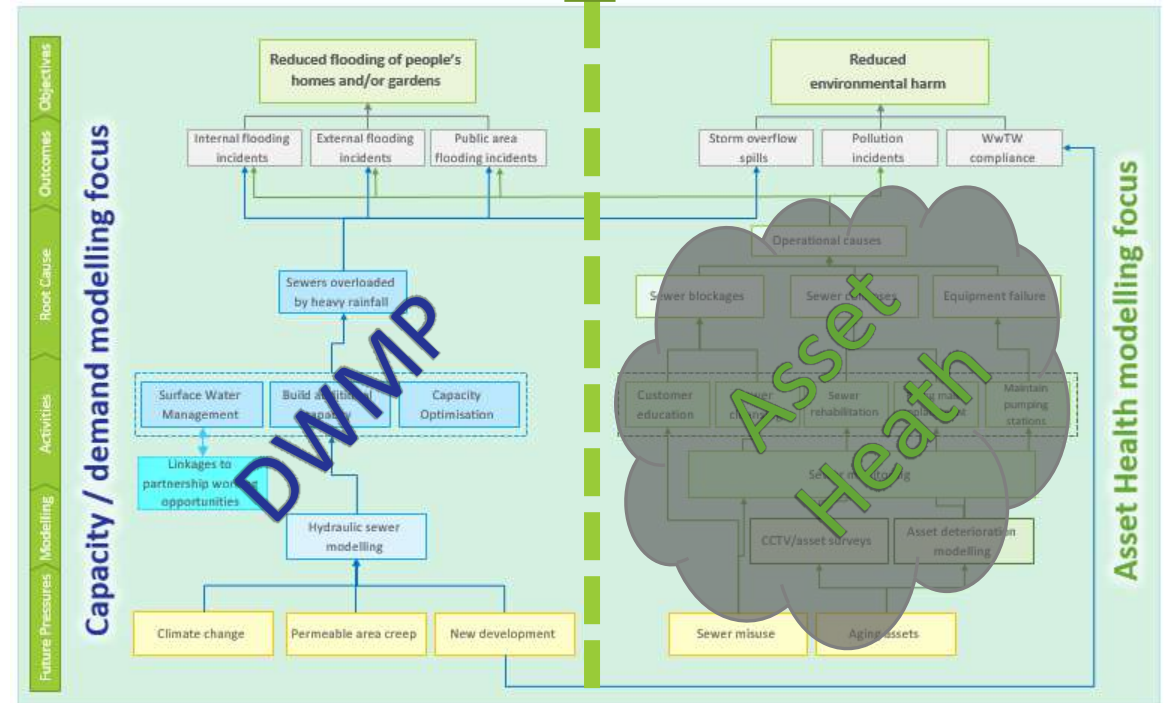
- Need something more granular to help visualise risks/opportunities across a catchment
- What would delivery partners find useful
- Need outputs to drive investment decisions
- Methodologies would need developing
- Shared GIS portal with delivery partners rather than pdfs

Builds upon the 2017 Water UK Capacity Assessment Framework hexagon visualisations



Focus area for Cycle 2

- Engagement of stakeholders
- Best Value Plans
- Climate change uncertainty
- SODRP
- Customer priorities
- Asset health



Summary

- DWMPs were always intended to complement other strategies & plans
- The 'D' in DWMP relates to a *sewerage company* 'drainage' assets, but clearly we interact very closely with other drainage.
- Climate change is our biggest challenge, so working together to manage surface water is essential
- DWMPs should focus on capacity to inform Business Plans.
- Outputs need granularity to drive investment decisions.
- DWMP thinking will continue to evolve beyond Cycle 2.



Next steps

- Defra are leading on developing Cycle 2
- Working groups actively taking the learning from implementing Cycle 1 to inform or to improve the Cycle 2 guidance.
- UKWIR are supporting deep dive best practice
- Cycle 2 Company Network (C2CN) regularly meeting to drive positive enhancements





THANK YOU

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