

Summary of alignment with expectations in Defra's Guiding Principles¹ and DWMP National Guidance²

1: <https://www.gov.uk/government/publications/drainage-and-wastewater-management-plans-guiding-principles-for-the-water-industry/guiding-principles-for-drainage-and-wastewater-management-plans>
 2: <https://www.water.org.uk/policy-topics/managing-sewage-and-drainage/drainage-and-wastewater-management-plans/>

What were we expected to do ?	Reference	How we have addressed expectations ?	Where is it on our DWMP website?																	
			Statement of Board Support	Level 1 Regional Plan	Strategic Context	Who we are working with	Risk Based Catchment Screening	Baseline Risk and Vulnerability Assessment	Level 2 (River Basin) plans	Approach to Uncertainty Technical Summary	Factoring in Climate Change Technical Summary	Factoring in Growth Technical Summary	Problem Characterisation Technical Summary	Selection of Wastewater Systems Technical Summary	Options Development and Appraisal Technical Summary	Programme Appraisal Technical Summary	Strategic Environmental Assessment	Have Your Say	How to find information on our website	Resilience Assessment (not published)
(Our Plan should be) "Evidence Based and Transparent"	Defra Guiding Principle 1	Our web based DWMP is structured to be accessible, transparent and evidence based																		
Assess "current capacity" (of our wastewater systems)	Defra Guiding Principle 2	Current and future risks to our systems are assessed through the BRAVA process.																		
Assess "actions needed" to consider current and future "risks and issues "	Defra Guiding Principle 3	Actions to manage and mitigate identified risks and issues are developed in our "Options Development and Appraisal (ODA) " process																		
"Strive to deliver resilient systems"	Defra Guiding Principle 2	"Creating Resilient Wastewater Systems" is part of the Level 1 DWMP																		
Consider Impact of drainage systems on environmental outcomes	Defra Guiding Principle 3	ODA process includes Multi Criteria Assessment (MCA) process , that takes into account environmental outcomes . The MCA is also used in the DWMP's Strategic Environmental Assessment																		
Be Collaborative	Defra Guiding Principle 4	The DWMP has been developed in partnership with stakeholders																		
Show Leadership	Defra Guiding Principle 5	We are pioneering delivery of "pathfinder" partnership schemes in advance of AMP8																		
Improve customer outcomes and awareness.... Actions provide "Best Value" and consider "societal benefits"	Defra Guiding Principle 6	We have set out to create an accessible DWMP for our customers, to help make them aware of the issues and needs, by using a web based platform for our DWMP. For investment needs derived through our Options Development and Appraisal (ODA) process, we demonstrate "Best Value" and wider "societal benefits" using our Multi Criteria Assessment (MCA) tool. This is explained fully in the ODA Technical Summary . (note: where the DWMP reports Investment Needs identified by the WINEP programme -for example Storm Overflows, the evidence base justifying "Best Value" is noted in the Programme Appraisal Technical Summary)																		
The Plan must take a long-term view (minimum 25 years)	National Guidance: Summary Page 6	Our BRAVA assessment establishes the risk score for each wastewater catchment for the base year of 2020 and looks at the future predicted risks at 2050 for 6 of the planning objectives																		
Anticipated that the DWMP will become embedded as "Business as Usual "	National Guidance: Summary Page 6	Our commitment the role of the DWMP in future strategic planning , timescale for development of the DWPM and embedding the DWMP as "Business as Usual" are included in the "Next Steps" section of the Level 1 plan.																		
Collaborative Engagement and shared responsibility in developing the DWMP	National Guidance: Summary Page 6	How we developed the DWMP in collaboration with other stakeholders is covered in our "who we are working with" section of the DWMP																		
Assessment of the long term drainage and wastewater capacity of our systems	National Guidance: Summary Page 7	See our BRAVA methodologies and results .																		
Assess where drainage infrastructure managed by others may impose additional risks	National Guidance: Summary Page 7	We consider all wastewater drainage assets connected to our system. Although we have established a bespoke planning objective to consider surface water (Planning Objective 10) , which will include third party surface water drainage systems, we have not assessed this Planning Objective in cycle 1 due to resource limitations.																		
Identify "Best Value" options	National Guidance: Summary Page 7	We have developed a "Best Value" plan using 1) Our Multi Criteria Assessment if anticipated benefits for each option (see our Options Development and Assessment (ODA) Technical Summary) and by 2) Using the WINEP "Best Value" evidence base for relevant options (see our Programme Appraisal Technical Summary) .																		
The DWMP is structured using three tiered planning levels	National Guidance: Summary (Page 8) & National Guidance: Section 3.5 (page 19)	The tiered structure of our DWMP is set out in the Introduction section of our Level 1 Document and in the "Guide to the structure and content of our DWMP" document																		
DWMP will be re-assessed and produced in a cycle consistent with the price review cycle and sufficiently in advance of business plan submissions to allow time to allow for customer and stakeholder engagement.	National Guidance: Summary Page 10 & National Guidance: Section 2 Page 14	Our commitment the role of the DWMP in future strategic planning , timescale for development of the DWPM and embedding the DWMP as "Business as Usual" are included in the "Next Steps" section of the Level 1 plan.																		
The DWMP has been developed in accordance with National Guidelines	National Guidance: Summary Page 10 & 11 & National Guidance: Section 3.4 p14	Our DWMP has been technically assured for compliance against the National Guidelines set out by WaterUK and Defra's "Guiding Principles" document . See statement of board support .																		
Review position of level 2 and level 3 planning units annually	National Guidance: Summary Page 10 & 11	Our commitment the role of the DWMP in future strategic planning , timescale for development of the DWPM and embedding the DWMP as "Business as Usual" are included in the "Next Steps" section of the Level 1 plan.																		
The DWMP must take into account legal requirements	National Guidance: Section 2 page 14	Our DWMP has been legally assured for compliance. See statement of board support .																		
The DWMP should address the actions and expectations as set out in the strategic policy statements	National Guidance: Section 2 page 14	Our DWMP has been technically assured for compliance against the National Guidelines set out by WaterUK and Defra's "Guiding Principles" document . See statement of board support .																		
Identify additional risks arising from interdependencies by engaging with other Risk Management Authorities and Stakeholders	National Guidance: Section 2 page 14	How we developed the DWMP in collaboration with other stakeholders is covered in our "who we are working with" section of the DWMP ; Our Options Development and Appraisal process (ODA) included identifying unconstrained options in conjunction with our partners.																		
Strong Links with plans of other Risk Management Authorities	National Guidance: Section 3.2 page 16	How we developed the DWMP in collaboration with other stakeholders is covered in our "who we are working with" section of the DWMP																		
Explain how the DWMP will inform the business plan	National Guidance: Section 3.2 page 17	How the DWMP informs our business plan is explained in Introduction to our Level 1 plan																		
Specific content expected in the the Level 1 plan	National Guidance: Section 3.5 Page 20	The DWMP is all of our DWMP website and it has been structured as set out in the "Guide to the structure and content of our DWMP" document . In order to make our plan clearer, the structure of our DWMP does differ slightly from the expectations of the level 1 document set out in the National Guidance: our level 1 document provides a regional overview and is supported by a number of regional investment plans. These collate and report the specific investment needs identified for our Level 3 wastewater systems. We report these same needs also at Level 2 and Level 3. The Planning Objectives and BRAVA apply to all levels of our DWMP and are available as "right hand links" on our website for ease of access.																		
DWMP to include Customer facing document, Non technical summary, technical summary, The Plan & Technical Appendices	National Guidance: Section 3.6 page 24	Our DWMP "Plan" is our website and all of our DWMP is designed to be "Customer Facing" ; Our website has been structured accordingly. We do not have technical appendices. See "Guide to the structure and content of our DWMP" for details how we have structured our DWMP. We have produced "Technical Summaries" to explain the detail of how we have approached specific elements of the DWMP process. Although we have attempted to make the language used in these summaries accessible, they are inherently focused on a more technical audience.																		
DWMPs will be made available to stakeholders and customers through companies' website	National Guidance: Section 3.6 page 24	Our DWMP "Plan" is our website.																		
It is expected that companies will provide stakeholders with visibility of progress,towards DWMP completion and subsequent (annual) reviews	National Guidance: Section 3.6 (page24)	Our commitment the role of the DWMP in future strategic planning , timescale for development of the DWPM and embedding the DWMP as "Business as Usual" are included in the "Next Steps" section of the Level 1 plan.																		
Provide visibility on the number of L3/L2s within each process step, and their completion status	National Guidance: Section 3.6 (page24)	We have undertaken Risk Based Catchment Screening (RBCS) on all 381 of our wastewater systems . Of these, 61 were prioritised for further detailed investigation through the Options Development and Appraisal (ODA) process. This is explained in detail in our Problem Characterisation and Selection of Wastewater systems Technical Summaries.																		
expected to establish planning objectives with a minimum 25 year design horizon	National Guidance: Section 4.2.2 (page 27)	Our BRAVA assessment establishes the risk score for each wastewater catchment for the base year of 2020 and looks at the future predicted risks at 2050 for 6 of the planning objectives																		
Ensure that planning objectives are consistent with Ofwat price review methodology	National Guidance: Section 4.2.2 (page 27)	We have adopted the six planning objectives agreed nationally																		
Companies are encouraged to include in their business plans indicative long-term performance commitment levels	National Guidance: Section 4.2.2 (page 27)	Our commitment the role of the DWMP in future strategic planning , timescale for development of the DWPM and embedding the DWMP as "Business as Usual" are included in the "Next Steps" section of the Level 1 plan.																		

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Consider how Planning Objectives at a regional level translate down to Level 2 and Level 3. Consider what risks are acceptable with Stakeholders.	National Guidance: Section 4.2.2 (page 27)	The BRAVA methodologies assess risk for all planning objectives and are consistent across all planning levels. Acceptable risk thresholds (Band 0) are defined in the BRAVA methodologies. Stakeholder engagement in the DWMP decision making process is covered in the "Who we are working with" section of the DWMP.																		
Consider long term planning horizons	National Guidance: Section 4.2.3. (page 29)	Our BRAVA assessment establishes the risk score for each wastewater catchment for the base year of 2020 and looks at the future predicted risks at 2050 for 6 of the planning objectives																		
Criteria for triggering BRAVA	National Guidance: Section 4.3. (page 32)	Our Risk Based Catchment Screening process identified which of our 381 wastewater systems required a more comprehensive BRAVA risk assessment																		
companies should undertake a high-level assessment of wider resilience needs on all L3 catchments	National Guidance: Section 4.3 (page 32) and 4.4.2 (page 38)	We have undertaken a high level Resilience Assessment of all of our 381 wastewater systems as part of the DWMP. This is not published as part of the DWMP.																		
undertake a "light touch" annual review of L3 catchments, focussing on material changes	National Guidance: Section 4.3 (page 33) and National Guidance: Section 7.2 (page 52)	Our commitment the role of the DWMP in future strategic planning, timescale for development of the DWPM and embedding the DWMP as "Business as Usual" are included in the "Next Steps" section of the Level 1 plan.																		
Details of hydraulic modelling methodology used for BRAVA Base year	National Guidance: Section 4.4.1 (page 36)	Our Hydraulic modelling uses WaterUK's Capacity Assessment Framework (CAF) "present day" scenario for base year - see the "Approach to Modelling" & "Modelling Scenario's" Technical Summaries																		
Details of hydraulic modelling methodology used for BRAVA Future scenarios	National Guidance: Section 4.4.1 (page 36)	Our Hydraulic modelling uses WaterUK's Capacity Assessment Framework (CAF) "Future Requirements" with central growth projection estimate for future scenarios - see the "Approach to Modelling" and " Modelling Scenarios Technical Summaries																		
Test the certainty of the growth forecasts	National Guidance: Section 4.4.1 (page 36)	Our BRAVA methodologies assesses growth forecasts against all relevant Planning Objectives with future scenarios. These have not been sensitivity tested																		
Apply standard practices to assessing the additional loads arising from changes in populations	National Guidance: Section 4.4.1.1 (page 37)	BRAVA to use standard SW methodology for assessing additional growth loads on WTW																		
Defines expectations of Problem Characterisation stage	National Guidance: Section 4.5 (page 38)	Our Problem Characterisation is a process assesses the complexity of the issues and identifies the appropriate "Investment Need" strategy for all BRAVA exceedences. By using a standard and consistent approach to BRAVA for all of our wastewater systems, we have removed the need to have a preliminary Problem Characterisation stage as suggested in the National Guidance.																		
Contents of Level 1 Prioritised Plans	National Guidance: Section 6.2 (Page 47)	Our level 1 regional plan summarises the "Investment Needs" for our Level 3 wastewater systems and prioritises them through a number of regional "Investment plans". These are targeted to focus on regulatory compliance and other drivers. Opportunities for partnership working are identified against each Investment Need at the Level 3 scale. The process of compiling and prioritising the Investment Needs is explained in the Programme Appraisal Technical Summary																		
Optimise L1 Plan on agreed set of views from customers/Stakeholders: Optimisation to be based on best value, needs certainty & overall benefits	National Guidance: Section 6.2. (page 48)	Preferred Options have been developed in consultation with customers and stakeholders (see "who we are working with and "have your say" sections on our website.). Preferred Options have been prioritised and optimised by the Programme Appraisal process (see the Programme Appraisal Technical Summary)																		
Test optimised L1 DWMP with customers and stakeholders and where necessary revise	National Guidance: Section 6.2. (page 48)	Our draft Optimised Plan was put to consultation in the summer of 2022. The responses received, and what did did about them, are recorded in the "Have your Say" section on our website.																		
Engagement with stakeholders should be formally collated and a consultation response document produced that summarises the views received.	National Guidance: Section 6.2. (page 48)	Public Consultation Report document published on website along side the "You said, we did" response document																		
Undertake SEA on final optimised plan	National Guidance: Section 6.3 page 50	Due to resource limitations, we have undertaken the SEA on the Investment Needs identified at the draft submission stage.																		
DWMP processes embedded in business as usual activities by AMP8	National Guidance: Section 7.1 page 50	Our commitment the role of the DWMP in future strategic planning, timescale for development of the DWPM and embedding the DWMP as "Business as Usual" are included in the "Next Steps" section of the Level 1 plan.																		
DWMP is reassessed on a cycle consistent with Price Review	National Guidance: Section 7.1 page 50	Our commitment the role of the DWMP in future strategic planning, timescale for development of the DWPM and embedding the DWMP as "Business as Usual" are included in the "Next Steps" section of the Level 1 plan.																		
DWMP to be developed in accordance with suggested timeline	National Guidance: Section 7.1 page 51	DWMP has been developed in accordance with timeline suggested by National Guidelines																		
A three level management structure should be developed (shown schematically in Fig A1)	National Guidance Appendices: A2	The tiered structure of our DWMP is set out in the Introduction section of our Level 1 Document and in the "Guide to the structure and content of our DWMP" document																		
Endeavour to align Level 2 areas with river basin districts	National Guidance Appendices:A2	Our Level 2 areas align with the River Basin Districts																		
More collaborative, shared planning approach coupled to an understanding of other risk management authority (RMA) plans and funding cycles is essential to the successful production of a DWMP.	National Guidance Appendices:A2	We have worked in collaboration with other stakeholders																		
The DWMP should provide the facilitation framework to ensure the essential integration of partners and co-creation of interventions and in so doing foster much greater understanding of the related needs and works of others	National Guidance Appendices:A3	We have developed this DWMP in collaboration with stakeholders and have aspirations to co create interventions																		
Closely follow good practice detailed in UKWIR project, 'How best to align the funding processes with the various bodies involved in resolving flooding' (UKWIR,2016)	National Guidance Appendices: A3	The DWMP has facilitated the development of future collaborative schemes and established a number of pathfinder projects to develop our expertise in this area. We have not fully explored co-funding of projects as part of this cycle 1 DWMP.																		
DWMP must demonstrate strong links with the plans of other RMAs	National Guidance Appendices:A3.1	We have worked in collaboration with other stakeholders																		
Demonstrate strong links where activities being promoted may significantly impact other plans (e.g. nutrient management plans, diffuse water pollution plans).	National Guidance Appendices:A3.1	We have worked in collaboration with other stakeholders, who have been involved in the creation of unconstrained options in our ODA process.																		
engage and work with environmental regulators and other stakeholders as appropriate, to ensure that planning processes encompass wider environmental objectives.	National Guidance Appendices:A3.1	We have worked in collaboration with other stakeholders																		
All L3 planning areas are to be subjected to a high-level risk-based review to determine if more detailed supply/demand assessments are required	National Guidance Appendices:B (RBCS)1	All 381 of our wastewater systems were subject to RBCS																		
Use the indicators in Table B-1 in the assessment and the risk based screening criteria to be applied to all L3 catchments.	National Guidance Appendices:B (RBCS)2	We have used all the criteria in table B-1 in our RBCS assessment																		
If any additional indicators used, provide an explanation in the DWMP documentation that defines the measure and the reason for its inclusion in the screening process	National Guidance Appendices:B (RBCS)2.1	We used one additional indication in our RBCS "Customer Complaints". It is fully documented on our website																		
Use number of indicators breached criteria a set out to determine if progress to BRAVA	National Guidance Appendices:B (RBCS)2.2	We have published our screening criteria for RBCS																		
Undertake resilience assessment on all catchments	National Guidance Appendices:B (RBCS)2.2	We undertook a Resilience Assessment on all 381 of our wastewater systems. This is not published as part of the DWMP																		

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Where missing data/information, treat as a breach of indicator and prioritise investigations to enable RBCS to be revisited	National Guidance Appendices:B (RBCS)3.2	Missing data erroneously was not considered as a breach . Subsequence review of the wastewater systems screened out of BRAVA has confirmed that none of them were screened out due to missing data being considered a pass.																		
Completed templates to be stored in a manner that would enable ease of access and reference should audit or assurance be required.	National Guidance Appendices:B (RBCS)3.2	Our RBCS results are available on our website																		
If RBCS triggers one or more of the screening criteria conditions (excluding sewer collapses and blockages) then will BRAVA. All L3 catchments will require resilience assessment	National Guidance Appendices:C (BRAVA)2.1	Our Resilience Assessment looked at all 381 of our wastewater systems																		
Where RBCS triggers BRAVA on a single issue, review need for wider assessment	National Guidance Appendices:C (BRAVA)2.2	Where RBCS triggers a BRAVA review , we have reviewed the L3 system concerned against all Planning Objectives																		
Use existing systems for future system impacts, subject to minimum requirements on 1) Growth (allow for baseline level of infl, use WRMP long term forecasts - Alternative approaches for specific areas to be developed in consultation with stakeholders), 2) urban creep/ infiltration/per capita consumption & climate change (use CAF future scenarios for all) 3) WTW discharges/quality - use standard practices	National Guidance Appendices:C (BRAVA)2.4	We have used existing systems for assessing BRAVA risks wherever appropriate - see our BRAVA methodologies																		
The base year should reflect existing demand (load/flows) from populations (resident/transient) in the catchment and reflect known issues associated with infiltration and groundwater risks. In understanding the flow elements, it is anticipated that companies would run, as a minimum, the storm events and time series rainfall as outlined in the CAF 'present day' scenario through available models. The outputs (flow/load) should be used to confirm WTW performance.	National Guidance Appendices:C (BRAVA)2.5.1	These elements are demonstrated in our BRAVA methodologies. We explain how we have undertaken hydraulic modelling in "Our approach to modelling" and "modelling scenarios" technical summaries																		
Examine future scenarios for the planning horizons within and up to the 25-year planning period based on the CAF 'future' requirements and, where appropriate, the wastewater resilience metric, but initially only using a central estimate for growth projections	National Guidance Appendices:C (BRAVA) 2.5.2	We have used the central estimate for growth																		
Test the outputs from the future scenarios as applied to the networks within the context of WwTW performance and the impacts on discharges and receiving water quality.	National Guidance Appendices:C (BRAVA) 2.5.2	We explain how we have undertaken hydraulic modelling in "Our approach to modelling" and "modelling scenarios" technical summaries																		
Evaluate the outputs to determine the nature of any problems identified (severity/consequence, timing) and the primary drivers.	National Guidance Appendices:C (BRAVA) 2.5.2	See BRAVA methodologies																		
Test the certainty of the growth forecasts against the extent of exceedance of planning objectives.	National Guidance Appendices:C (BRAVA) 2.5.2	We have not undertaken sensitivity analysis on growth forecasts																		
Undertake a preliminary problem characterisation using a strategic needs score assessed against growth uncertainty (this will involve some subjectivity and companies should seek endorsement for their approach in consultation with L2 SPGs).	National Guidance Appendices:C (BRAVA) 2.5.2	We have not undertaken a preliminary Problem Characterisation; all wastewater systems that were not screened out at RBCS reviewed a standard BRAVA. We completed a single pass Problem Characterisation that assessed the appropriate strategic investment strategy and likely ODA complexity.																		
Complete further assessment of the impacts of growth where the output from the preliminary problem characterisation is either 'amber' (extended BRAVA), or 'red' (complex BRAVA).	National Guidance Appendices:C (BRAVA) 2.5.2	We did not undertake a preliminary problem characterisation. We used Problem Characterisation to prioritise "Options Development and Appraisal" for the wastewater systems with highest BRAVA risk (ie that Problem Characterisation identified as "Amber" or "Red")																		
'Enhanced Brava' Where the preliminary problem characterisation assessment indicates an 'amber' then additional sensitivity testing of the uncertainties is recommended.	National Guidance Appendices:C (BRAVA)2.5.2	All wastewater systems that were not screened out at RBCS received a standard BRAVA. Scenario development and sensitivity testing was not undertaken.																		
Complex Brava : Develop complex scenarios to fully assess the impacts of wide-ranging uncertainties in the system.	National Guidance Appendices:C (BRAVA) 2.5.2	All wastewater systems that were not screened out at RBCS received a standard BRAVA. Scenario development and sensitivity testing was not undertaken.																		
Complex Brava : Apply multiple uplifts (+/-) to all growth projections – defined in consultation with L2 SPGs	National Guidance Appendices:C (BRAVA) 2.5.2	All wastewater systems that were not screened out at RBCS received a standard BRAVA. Scenario development and sensitivity testing was not undertaken.																		
Complex Brava : Assess using CAF 'future' (or company specific) approach.	National Guidance Appendices:C (BRAVA) 2.5.2	We explain how we have undertaken hydraulic modelling in "Our approach to modelling" and "modelling scenarios" technical summaries																		
Complex Brava : Determine WTW impacts using all flows/loads (unless adequate capacity at the works).	National Guidance Appendices:C (BRAVA) 2.5.2	We have determined WTW impacts at BRAVA using all flows and loads																		
Engage with L2 SPGs to agree the range of plausible scenarios to be considered with a view to focussing the problem characterisation process.	National Guidance Appendices:C (BRAVA) 2.5.2	Scenario development and sensitivity testing was not undertaken. Stakeholders were consulted in developmen of options.																		
Outputs from BRAVA to indicate 1) Exceedances (or changes from baseline – delta) against planning objectives; 2) Timing of exceedances (or delta) within the planning horizon; 3) Primary drivers behind the exceedance.	National Guidance Appendices:C (BRAVA) 2.5.4	BRAVA results show the required parameters																		
Complete existing regulatory planning requirement: classify storm overflows as unsatisfactory, substandard or satisfactory	National Guidance Appendices:C (BRAVA) 2.5.4	WINEP has provided the evidence base for the Storm Overflows investment needs. This is explained in our Programme Appraisal Technical Summary																		
extended BRAVA assessments, engagement with L2 SPGs will lead to a single or limited set of scenarios that will need to be addressed by the problem characterisation	National Guidance Appendices:C (BRAVA).3	All wastewater systems that were not screened out at RBCS reviewed a standard BRAVA. Stakeholders were involved with the identification specific issues and development of unconstrained options for the wastewater systems that were passed through to Options Development and Appraisal																		
complex BRAVA assessment: engagement with L2 SPGs will likely require that a broader range of scenarios will need to be assessed. For complex systems, having a range of scenarios is considered a necessity to enable multiple option (e.g. adaptive pathway) type interventions to be evaluated	National Guidance Appendices:C (BRAVA)3	All wastewater systems that were not screened out at RBCS received a standard BRAVA risk assessment. Adaptive planning scenarios were produced following identification of preferred solutions .																		
Define the level of risk around the exceedances identified e.g. does a 5% increase in the risk of internal sewer flooding represent a high, medium, or low, risk?	National Guidance Appendices:C (BRAVA)3	Sensitivity assessments not undertaken for cycle 1																		
Consider whether timing influences the risk level e.g. 5% exceedance risk in a 10-year horizon may be considered medium risk but could be considered low within a 25-year horizon – in terms of when the planned risks are likely to occur (the potential need to develop more consistent approaches to risk across companies needs to be considered as the DWMP process evolves).	National Guidance Appendices:C (BRAVA)3	See BRAVA methodologies for how future risk has been assessed.																		
Consider wider issues associated with the exceedances (e.g. tie in with other risk management authorities (RMA) plans, opportunities for partnership working as a function of the primary driver)	National Guidance Appendices:C (BRAVA)3	Stakeholders were involved with the identification specific issues from an early stage. These were then developed into unconstrained options for the wastewater systems (see Options Development and Appraisal technical summary)																		
Develop a view (expert judgement) on the potential complexity of solutions (a function of the number of planning objective exceedances but including timing of need and potential lead in times)	National Guidance Appendices:C (BRAVA)3	This was done. See problem characterisation technical summary																		
Develop the 'strategic needs score' for L3 TPU	National Guidance Appendices:C (BRAVA)3.1	See problem characterisation technical summary																		
document the rationale for the scoring they have used, to aid explanation and justification to L2 SPGs.	National Guidance Appendices:C (BRAVA)3.1	See problem characterisation technical summary																		
Develop the Complexity Factor score for each L3 catchment	National Guidance Appendices:C (BRAVA)3.2	See problem characterisation technical summary																		
Complexity factor questions for the demand and supply sides respectively.	National Guidance Appendices:C (BRAVA)3.2	See problem characterisation technical summary																		
Demand risks to be addressed in complexity factor include: Near / Medium Term (Climate Change, New Development, Urban Creep). & Future (Climate Change, New Development, Urban Creep and uncertainties)	National Guidance Appendices:C (BRAVA)3.2	We did not use the supply/demand model for problem characterisation (PC) . We developed a bespoke PC process that assessed the "strategic needs" and "complexity" of each wastewater system , to determine the appropriate "investment strategy" that we should apply . Specific scenarios not developed at this stage																		

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Supply risks to be addressed in complexity factor include: Near / Medium & Future Term (system performance , asset deterioration, misuse), future stepped changes in regulation , Near / Medium term cross catchment opportunities to increase capacity	National Guidance Appendices:C (BRAVA)3.2	We did not use the supply/demand model for problem characterisation (PC) . We developed a bespoke PC process that assessed the "strategic needs" and "complexity" of each wastewater system , to determine the appropriate "investment strategy" that we should apply . Specific scenarios not developed at this stage																		
Complete the assessment using the 'scores' and populate the problem characterisation matrix.	National Guidance Appendices:C (BRAVA)3.4	Our bespoke problem characterisation process uses the same scoring and matrix as the guidance																		
Provide a documented and auditable trail to explain the rationale, reasoning for the assessment, and decisions to regulators and stakeholders.	National Guidance Appendices:C (BRAVA)3	We held workshops with stakeholders to develop the BRAVA process and to identify wider issues. To ensure transparency and engagement, our BRAVA results and methodologies have been published on our DWMP website from when they were developed in late 2020/ early 2021.																		
Develop the supporting case for the classification of vulnerability (based on undertake several iterations of the problem characterisation assessment)	National Guidance Appendices:C (BRAVA)3	We undertook a single pass Problem Characterisation process to assess priority for Options Development																		
Present the results to L2 strategic planning groups (SPGs) for consultation.	National Guidance Appendices:C (BRAVA)3	We held workshops to present the BRAVA results																		
As part of the consultative process with L2 SPGs, companies will be required to explain the findings, issues and assumptions from the problem characterisation step	National Guidance Appendices:C (BRAVA)3.3	We did not undertake a preliminary Problem Characterisation (PC) stage. All of our wastewater systems that were not screened out by RBCS underwent a full BRAVA. The prioritisation of our wastewater systems , based on their BRAVA needs, were presented to stakeholders at a series of workshops (see who we are working with)																		
Undertake a high level evaluation of wider resilience issues across all catchments. As a minimum , should focus on Fluvial and/or coastal flooding of WWTW and Major Pumping Stations, Power Outages, Outages to remote communications & Response Recovery Plans	National Guidance Appendices:C (BRAVA)5	This was done as part of the Resilience Assessment. We have not published this as part of the DWMP																		
It is recommended that the options are collated at L2, to demonstrate that 'local' resilience issues have been addressed, and in the L1 DWMP documentation to demonstrate a company's overall resilience position.	National Guidance Appendices:D (ODA)3.7	Level 3 Investment Needs are collated at Level 2 (river basin level) and prioritised at Level 1 (regional)																		
ODA process should be undertaken for any L3 TPU where a risk is identified	National Guidance Appendices:D (ODA)2	Due to resource limitations, in cycle 1 we have undertaken full ODA for 61 of our highest risk wastewater systems																		
Options appraisal to include interventions at L3,L2 & L1 to produce an optimised L2 plan that delivers against planning objectives for L2 SPA	National Guidance Appendices:D (ODA)2	Options Development was initially unconstrained in scope (see ODA technical summary)																		
Develop options for all L3 TPU within L2 to produce prioritised L2 plan that delivers against planning objectives for L2 SPA	National Guidance Appendices:D (ODA)2	See ODA technical summary . Level 3 Investment Needs are collated at Level 2 (river basin level) and prioritised at Level 1 (regional)																		
Demonstrate there are plans in place to address all risks that are forecast to arise within the planning horizon and that the DWMP is resilient and adaptable to future uncertainties	National Guidance Appendices:D (ODA)3.1.1	We have estimated the efficacy of the investment needs identify at our 61 wastewater systems that went through ODA (ie the benefits the options are expected to deliver) . We then extrapolated the investment required to achieve band zero for all Planning Objectives (for the 61 systems) and then further extrapolated these totals to estimate the overall investment required to achieve band zero for all 361 of our wastewater systems. This is explained in our Programme Appraisal Technical Summary																		
The feasible list should include sufficient options to allow real choices and acknowledged trade-offs in determining an optimum or preferred option (as per the SOAF guidance a minimum of two options is recommended)	National Guidance Appendices:D (ODA)3 / D (ODA)3.5	In order to maximise BRAVA band reduction, there are often not multiple feasible options. Preferred options are selected to demonstrate best value through maximising multiple benefits through the Multi Criteria Assessment tool (see the ODA technical summary)																		
screening should be auditable and robust to ensure that all appropriate options are fully considered whilst also refining the number of options down to a manageable number for decision support tools to handle.	National Guidance Appendices:D (ODA)3	We have publish our Feasible Options summary table, which also acts as our Rejection Register for each Level 3																		
The non-specific options approach supports decision making in the medium to long-term but is not considered appropriate where the risks are forecast to materialise in the near term	National Guidance Appendices:D (ODA)3.1.2	Our approach to ODA develops options to an appropriate level for strategic planning (see ODA technical summary)																		
Generic options need to be comprehensive and cover a wide range of options; these should include those addressed under all cost types' i.e.operational costs, capital maintenance, 'new' totex.	National Guidance Appendices:D (ODA)3.2	We have used a standard approach to ODA (see ODA technical summary)																		
A consistent approach to the assessment of all options should be captured within a standard option proforma and included as part of the supporting evidence for the DWMP	National Guidance Appendices:D (ODA)3.2	We have used a standard approach to ODA (see ODA technical summary)																		
Develop a 'rejection register' to capture those options screened out and the reasoning for their rejection at this point in planning	National Guidance Appendices:D (ODA)3 /D (ODA)3.2.1 /D (ODA)3.4	We have used a standard approach to ODA (see ODA technical summary)																		
Develop a set of screening criteria through engagement with L2 strategic planning groups (SPGs)	National Guidance Appendices:D (ODA)3	We worked with stakeholders to develop our Unconstrained Options																		
Assess the unconstrained option list against the screening criteria to derive a list of constrained options	National Guidance Appendices:D (ODA)3.3	We have used a standard approach to ODA (see ODA technical summary)																		
For all options where flow is a primary driver, targeted measures to promote water efficiency in the catchment will be implemented as part of any wider option.	National Guidance Appendices:D (ODA)3.3	Water Efficiency is a standard generic option																		
Where models are not available or incomplete, companies are encouraged to utilise all information sources to derive an initial risk-based set of options.	National Guidance Appendices:D (ODA)3.3	We have not assessed hydraulic options where a hydraulic model is required for options development but not available. In this situation, we undertook an appropriate assessment of the options to mitigate the non hydraulics risks in the wastewater system and identified the need to improve the hydraulic models.																		
Where there is a need to develop new models to improve understanding of risk and hence increase the certainty of option identification then allowance should be made for such model developments	National Guidance Appendices:D (ODA)3.3	We have not assessed hydraulic options where a hydraulic model is required for options development but not available. In this situation, we undertook an appropriate assessment of the options to mitigate the non hydraulics risks in the wastewater system and identified the need to improve the hydraulic models.																		
High level screening to encompass Technically Feasible , Cost Effective (High/Med/ Low), Outcome.Environmental , Customer support, Risk.	National Guidance Appendices:D (ODA)3.3	We have used a standard approach to ODA (see ODA technical summary)																		
Refine the constrained list to a range of feasible options	National Guidance Appendices:D (ODA)3 / D (ODA)3.4	We have used a standard approach to ODA (see ODA technical summary)																		
Develop, where possible, a minimum of two feasible options and complete a more detailed cost and benefit assessment.	National Guidance Appendices:D (ODA)3.1.3	In order to maximise BRAVA band reduction, there are often not multiple feasible options. Preferred options are selected to demonstrate best value through maximising multiple benefits through the Multi Criteria Assessment tool (see the ODA technical summary)																		
Minimum screening criteria to include: Customer acceptability, Political acceptability, Trimeline, Dependencies , Third parties, Planning & Regulatory constraints, Engineering and Costs, Performance , Operational, Environmental	National Guidance Appendices:D (ODA)3.4	We have used a standard approach to ODA (see ODA technical summary)																		
it is recommended that companies undertake a high-level assessment of environmental and social impacts, including potential impact on designated features / water bodies and a Water Framework Directive (WFD) assessment for each option.	National Guidance Appendices:D (ODA)3.4	We have used a standard approach to ODA (see ODA technical summary)																		
The process should include a description of how options may contribute to mitigating individual or groupings of identified risks and identified customer priorities, emphasising	National Guidance Appendices:D (ODA)3.4	We have used a standard approach to ODA (see ODA technical summary)																		
For each option expected to produce : description, scale of benefits to be achieved, assessment of customer support, estimate of time needed, risk assessment, assessment of flexibility, explanation of dependencies, assessment of constraints, how option will be used, assessment of environmental impacts, HRA , Cost Benefit Assessment (incl Natural capital / ecosystem services type)	National Guidance Appendices:D (ODA)3.5	We have used a standard approach to ODA (see ODA technical summary)																		
Cost Benefit For each Option to include: Profile of costs over time (capital, Operating and financing) + environmental and social impacts of the option. Companies should undertake natural capital / ecosystem services type assessments developed by UKWIR and companies will be expected to follow this guidance when it is finalised	National Guidance Appendices:D (ODA)3.5	We have developed capital costs only. Our costing in cycle 1 of the DWMP do not take into account the six capitals (including natural capital) .																		

Summary of alignment with expectations in Defra's Guiding Principles¹ and DWMP National Guidance²

1: <https://www.gov.uk/government/publications/drainage-and-wastewater-management-plans-guiding-principles-for-the-water-industry/guiding-principles-for-drainage-and-wastewater-management-plans>
 2: <https://www.water.org.uk/policy-topics/managing-sewage-and-drainage/drainage-and-wastewater-management-plans/>

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For each L3 companies should present the feasible options to the L2 SPGs and obtain an endorsement of the final option to be included as part of the L2 strategic plan	National Guidance Appendices:D (ODA)3.5	We have publish our Feasible Options summary table, which also acts as our Rejection Register for each Level 3. Our investment needs were presented to stakeholders as part of our Stakeholder Challenge workshops before the public consultation.																		
There has to be an understanding from all stakeholders in L2 SPGs that the 'initial' prioritised L2 plan is one which, if funding was not constrained, all interventions selected would be undertaken to meet the identified standard of service.	National Guidance Appendices:D (ODA)3.8	Our plan is needs based and therefore differs from our business plan. This is explained in our main Level 1 document. Our risk based investment needs were presented to stakeholders as part of our Stakeholder Challenge workshops before the public consultation.																		
The plan should be developed in consultation with L2 SPGs but should reflect that which offers 'best value' (considering costs and benefits) as opposed to simply least cost	National Guidance Appendices:D (ODA)3/D (ODA)3.8	We have consulted extensively with stakeholders in developing a "best value" plan																		
Optimal Plan delivering best value against all Planning Objectives. Within each planning horizon: 1) Interventions with Statutory Drivers (All costs / benefits allocated to appropriate planning period) 2) Non statutory Interventions (Best Value options, prioritised by NPV, Customer Preference, Multi benefits, Co-creation, Uncertainty, Multi planning period, Resilience.	National Guidance Appendices:D (ODA)3.8	We demonstrate why our plan is "Best Value" in our ODA and Programme Appraisal Technical Summaries.																		
Present the outputs from the ODA within L2 area plans; these should detail the assessments undertaken and the options identified, and outline how it has derived the 'initial' L2 prioritised plan that will, in isolation from other L2 plans, meet planning objectives in the near, medium and long-term.	National Guidance Appendices:	Our ODA results are reported for each L3 system within a L2 riverbasin																		
Initial L2 prioritised plans that will be taken through to the L1 optimisation process. This will be an iterative process. There will be iterations between the developed L1 DWMP and the L2 plans which could see elements of L2 plans, which may have been prioritised, excluded and deferred for consideration in L2 plans are not delivery proposals but a key element that feeds into the development of the final DWMP.	National Guidance Appendices:D (ODA)3.9 / D (ODA)3.8	Our level 1 (regional) plan is a prioritised summation of all our L3 plans. It has been devoped iteratively following several stages of consultation. We have recorded the outcomes of issues raised in the consultation process in a "you said, we did " document																		