

DWMPStrategic Context Document responses

May 2020

OVERVIEW AND ACTIONS

Overview	3
Foreword	
Topics and Questions	5
Question 1	7
Question 2	9
Question 3	11
Question 4	13
Question 5	15
Question 6	17
Question 7	18
Question 8	20
Question 9	

APPENDICES

Appendix A - Programme	22
Appendix B – Planning Objectives	
Appendix C – Glossary	

Overview

The Drainage and Wastewater Management Plan framework provides the basis for more collaborative and integrated long term planning by companies, working with other organisations that have responsibilities relating to drainage, flooding and protection of the environment. It makes use of the tools and approaches, developed by the 21st Century Drainage Programme to enable companies to target investments more effectively and provide customers and stakeholders with better information about the UK's drainage and wastewater services.

The Northumbrian Water Strategic Context Document aims to set out an overview of the Drainage and Wastewater Management Plan Framework and requirements, but more specifically articulate Northumbrian Water's vision for a North East DWMP. This document aims to raise stakeholders' awareness of the objectives of the DWMP, identify key drivers which will act to challenge systems in the future, but also and more importantly, identify a set of common planning objectives, enabling co-understanding and thereon co-creation of affordable solutions.

The Strategic Context Document aims to be a start towards reaching alignment between stakeholders, and it will be revised and updated through the implementation of the DWMP, as industry best practice through the Steering Group and Implementation Group is taken into account, before the final DWMP is published in summer 2022.

Following a partners workshop in November 2019, the first draft of the document was released for comment on 19 December 2019. The following organizations were invited to comment on the document:

CC Water, The Coal Authority, Darlington Council, Durham City Council, Environment Agency, Gateshead Metropolitan Council, National Farmer's Union, North Tyneside Council, North Yorkshire County Council, Northumberland County Council, Redcar & Cleveland Council, South Tyneside Council, , Stockton Council, Sunderland City Council, Teesside University and internal stakeholders within Northumbrian Water.

Following the deadline for responses on 6 March 2020, the comments were collated and reviewed. This report summarises the questions and our responses to the comments.

Please refer to **Appendix C** for a glossary of the terms used throughout.

Foreword

Thank you for reading the strategic context document for Northumbrian Water's first Drainage and Wastewater Management Plan (DWMP). This is a critical document as we aim to ensure our region can have confidence in a reliable and resilient drainage and wastewater system for the years ahead.

We are now progressing with the production of our DWMP, which is due for completion by June 2022. I would like to thank all those who contributed to the strategic context workshop in November 2019 and through the consultation in January 2020. We have used both the outputs from the workshop and your feedback from consultation to prepare the final document.

The DWMP will inform Northumbrian Water's business plan submission for the next regulatory periodic review in 2024. We anticipate that for subsequent planning periods, the DWMP will become embedded within our planning processes as a key element in our approach. This is why it is so important to get the first DWMP right and the strategic context is the basis for how Northumbrian Water will achieve this.

To get the best outcomes for all in our region, we need to work collaboratively with customers and all organisations who have an interest in these issues – including stakeholders with an interest in planning, development, risk management and the environment. We look forward to continuing engagement throughout this process.

This is just the first step on our journey but by working together to develop and implement our DWMP, we can make great strides to reduce flooding and protect the environment for future generations.

Richard Warneford Waste Water Director

Email: richard.warneford@nwl.co.uk

Topics and Questions

Question number	Topic	Page	Question
Q1	Delivery Programme	P6	Is the need for a NE DWMP clear? What part could you see your organisation play in its delivery? Are there any other plans which you think are complementary to the objectives of a NE DWMP?
Q2	Strategic Planning Areas	P9	Do you think the proposed governance is adequate and suitable? Are there any other iterations that you could suggest? If so, could you please make suggestions and contact us.
Q3	Stakeholders' role	P11	If not mentioned, how do you think your organisation can play a role? What is your organisations' expectations of the DWMP?
Q4	Drivers	P12	Are the drivers mentioned above suitable? It is important to recognise that there are a number of challenges that will affect effective drainage in the future. Are there any other drivers that you consider should be included?
Q5	Planning Objectives	P14	Are these Planning Objectives relevant to your organisations? Through a number of stakeholder meetings, we have taken on board comments that the language used is sometimes difficult to convey what the Planning Objectives mean to individual organisations. Would it be more appropriate to refer to the Planning Objectives as Outcomes? Would you have any suggestions on how to better articulate these terms, so that they are relevant to your organisation and easy to understand?
Q6	Planning Horizons	P15	Are the suggested planning horizons adequate? Do they offer the right balance between short/medium and long term planning needs to be identified? Are these aligned to your organisation's strategic horizons?

Q7	Planning Tools	P17	Are the tools mentioned above beneficial to your organisation? Are there other tools that you might use currently or are in the process of developing which you think would be relevant?
Q8	Reporting Structure	P18	Are the above reporting requirements suitable? Would you prefer a paper based platform to share the findings or would a web based spatial platform be more appropriate? Could you share with us any good examples of such platforms?
Q9	Proposed Strategic Planning Group	P20	If identified on the above table, would you be happy to be engaged further? If identified but not having been confirmed, could you provide a contact detail for your organisation? And lastly if not identified and you would like to be part of the Strategic Planning Group, or would like to make a suggestion of who should be, what would be the best way for us to engage?

Please note that organization and personal names have been removed from the consultee responses throughout.

Question 1

Q1	Delivery Programme	P6	Is the need for a NE DWMP clear? What part could you see your organisation play in its delivery? Are there any other plans which you think are complementary to the objectives of a NE DWMP?
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Consultee Responses

Yes the need for a NE DWMP is clear. As stated stakeholders across the region have already been successfully working collaboratively to engage in long term and proactive planning. South Tyneside Council (STC) has played an important part in this with the studies/partnerships mentioned directly resulting in benefits to hundreds of residents/customers across the Borough. South Tyneside is committed to aiding in the delivery of the NE DWMP as a stakeholder and is keen to explore further co-funding/co-delivery opportunities. Additionally STC are dedicated to flood risk reduction and environmental protection/improvement.

The need has been clearly explained in the Strategic context - Stage 1 document. Other complimentary plans include the River Basin Management Plans (Northumbria and Solway Tweed) for our region, Flood risk management Plans and WINEP (AMP7 and AMP8). Note: mentioned on Page 10.

The need for a DWMP is clear and it is important for all RMA's and partners to be included in the delivery. The NE DWMP should enhance and support the work of the NIDP. The DWMP should align with the FCERM National and Local Strategies, also with key issues for the RMA's

The need for the DWMP is clear however the potential scope and reach of the DWMP has been constricted by the strategic context document. The aim of the DWMP process, is that all the strategic planning for environmental and flooding improvements is integrated to give benefits to the customer and the environment. The strategic context document Indicates just the capacity of Northumbrian waters network is planned for excluding the wider drainage network and the drainage areas into which it drains. The EA has a strategic role to play in steering the development of the plan however more consideration needs to be given to the engagement with the Environment Agency and the governance of the plan (see Q2).

Although the Strategic Context identifies the scope of the DWMP as looking at a combination of flooding and environmental impacts, the document appears to focus on flooding impacts with insufficient reference to the range

of mechanisms by which infrastructure causes environmental impacts, including through physical modifications. There are 3 strategic plans which need to be referenced in the DWMP. The WRMP, there is potential to engage with the WRMP and to share data and options to have an integrated approach between water and waste water. The data used in the DWMP and the data used in the WRMP need to be the same using the same projections (climate change and population projection etc.) for this to happen. There may be scope to have joint strategies like having a maintained base flow in some rivers to protect the flow allowing enough dilution for larger works like in the Tyne estuary. The RBMP also needs to be referenced in the DWMP, it is due to be published in 2021. The RBMP brings together actions undertaken to improve the water environment, this is not only water quality, but ecology, hydrology, ground water. This wider scope needs to be considered in the DWMP. It would also be useful to include the Local Flood risk management strategies, statutory documents produced by local authorities. These should be referred to in the plan. Section 19 Flood Reporting (Flood and Water Management Act) should also be referred to in the plan.

Yes

Would be happy to work with NW/consultants to collate and provide information required to support NE DWMP.

Northumbrian Water response to comments:

We are delighted that the partners are keen to continue and build on the partnerships formed through other groups including the NIDP. We are keen to reinforce these relationships through the DWMP. The scope of the DWMP is defined by the Framework document and associated timescales. The Strategic Context Document sets out how we propose to implement the Framework. The DWMP will help us plan and prioritise for PR24 taking consideration of a number of factors of which sewer capacity is just one. We are assessing a number of planning objectives covering water quality indicators. The potential options to arise from the DWMP will consider best value which includes environmental impact. To this end, we intend to canvass customers on what constitutes best value for them which may be sustainable/SUDS type options rather than traditional infrastructure. We anticipate that the RBCS and BRAVA will highlight where there is the opportunity to work together on future studies. Where possible we are aligning with the data used in the WRMP while ensuring that we are in line with the other water companies. We are working hard to meet the BRAVA deadline as we find our way through the DWMP Framework. We will take the comments back to the National Steering Group and agree that there are many potential opportunities for closer collaboration on future rounds of the DWMP.

Please rfer to **Appendix A** for our current programme.

Question 2

Q2	Strategic	P9	Do you think the proposed governance is adequate and
	Planning Areas		suitable? Are there any other iterations that you could suggest?
			If so, could you please make suggestions and contact us.

Consultee Responses

Proposed governance looks to be adequate and suitable.

The SPG needs to have some very clear terms of reference and clear lines of engagement and recording of decisions and interactions with existing stakeholder engagement groups. It is good to avoid additional levels of bureaucracy, but also important to record where agendas crossover and interact.

Governance seems appropriate. Suitable consideration of cross boundary issues included and the 3 level approach seems suitable.

It's currently unclear how the governance will work in practice. It would be useful to have the different groups which will be part of the governance structure listed? Will the outputs go into the WINEP, or be separately listed in the business plan? If the outputs are to be integrated into the WINEP how will the outputs and governance work around the existing working groups (very little engagement has happened so far with these groups) how will the planning for the NIDP fit into this? At what point will the catchment partnerships, and the compliance groups feed into the governance structure? The proposed governance framework is to divide the water company area into 485 L3 Tactical Planning units (TPUs) and merge L2 and L1 levels to create 7 Strategic Planning Areas (SPAs). Is It proposed that one strategic planning group (SPG) cover all of the 7 SPAs? NWG is proposing to use existing stakeholder engagement groups such as the NIDP, CaBA meetings, improving the Environment Steering Group, Strategic Flood Risk Groups, the Northumbria Regional Flood and Coastal Committee, Planning Liaison meetings, EA/NWG compliance liaison meetings amongst others to have informed discussions about acceptable levels of risk before then making a recommendation to be endorsed by the Strategic Planning Group. It is not clear if one or more or all of these groups would be involved in discussions. It is not clear whether it is for groups or NWG to make any recommendation to the SPG. The current proposal appears to limit any discussions with these groups to be about acceptable levels of risk. It is recommended that opportunities to enhance and mitigate should also be part of any discussions. The proposed boundaries appear logical and an approximate fit with drainage catchments. There is no precise fit when attempting to divide an area by both drainage catchments and local authority or other administrative boundaries. All options will present a compromise. In section 6 the Tweed Forum completes the set of 5 Catchment Partnerships operating in the Northumbrian Water area.

yes

Supportive of the use of existing stakeholder engagement groups to discuss acceptable levels of risk but would like detail of the commitment (time and resources) for the SPG.

Northumbrian Water response to comments:

We are in the process of appointing representatives to the External Steering Group. To assist in this process, we are calling for volunteers in our DWMP Newsletter. Once these people have been identified, we agree that it would be useful to list the groups feeding into the governance structure and aim to include this. As stated above, while the primary objective of the DWMP is to plan future work for PR24, we believe that the RBCS and BRAVA will highlight opportunities for further partnership working which will then become recommendations from the BRAVA. These types of recommendations will be fed into the various working groups such as the WINEP group so that they can be taken forward as separate projects if so desired. We envisage one strategic planning group to cover all 7 SPAs but with representation from all 7 SPAs on the group.

Question 3

Q3	Stakeholders' role	P11	If not mentioned, how do you think your organisation can play a role? What is your organisations' expectations of the DWMP?

Consultee Responses

Liaison meetings have representatives in attendance and are an excellent opportunity to discuss current issues and view the forward work programme(s) at an early stage. We can raise the importance of the DWMP internally with members, senior management and residents.

LLFA's are already included through the NIDP and will play a key role.

We acknowledge and support Northumbrian Waters work with Partnerships and recommend this be continued and expanded to integrate environmental improvement as a necessary component of the DWMP and every flood risk project, but also to consider environmental improvement projects as the starting point of opportunities to reduce flood risk and improve NWG assets. The role expectation is that we will influence the design of the DWWMP to produce innovative ideas to improve the environment whilst also protecting people and businesses from flooding. The best way to do this is to regulate how NWG operate their assets and to jointly plan for improvements which will mitigate the risk of environmental harm, non-compliance, and flood risk. We also wish to see the DWMP addressing the ecological impacts of existing and past physical modifications of rivers on which the water company relies to carry out is drainage function, in addition to testing the vulnerability of priority investment areas against future scenarios. It is not expected that resolving this issue is reserved solely to the NIDP approach which tends to focus on addressing existing and past flooding issues as a starting point. Addressing the environmental impacts of drainage infrastructure should be given a stronger emphasis. The area team will work with their national colleagues to influence the structure of the DWWMPs so that they can give the best environmental and flooding outputs before these plans become statutory.

Consultee

Sharing data could be improved (following partnership agreements being put in place).

Northumbrian Water response to comments:

The DWMP considers a number of issues over various time horizons. The problems are then assessed against best value to give a prioritised list of issues. Best value identifies the wider benefits of resolving an issue which may be improved water quality or fewer CSO spills for example. At optioneering stage, there is a long list and short list of options including SUDS. As

already stated, where there are multi-stakeholder benefits to be gained we would be looking to work in partnership to get the best value for everyone.

Question 4

Q4	Drivers	P12	Are the drivers mentioned above suitable? It is important to
			recognise that there are a number of challenges that will affect effective drainage in the future. Are there any other drivers that you consider should be included?

Consultee Responses

All drivers mentioned are suitable. Climate change/resilience could be expanded to include climate change mitigation and adaptation which will be the key going forward. Increase in development (linked to population growth) will be a challenge.

The drivers are sufficiently high level to cover a broad range of challenges. There may be some challenges that could cross-over one or more of the headings. Legislative changes may introduce new challenges on DWMP by influencing a number of areas including regulation of the Water Industry, Industry and Traders, Agriculture etc.. Climate change may have an indirect impact on DWMP challenges for example changes in groundwater levels and infiltration into networks (in addition to the impact of rising minewater discharges mentioned).

Whilst the drivers mentioned are important to us all, they seem to lack the key element of economic growth, which is the key driver for most, if not all local authorities. This includes the effect the DWMP may have on critical infrastructure, business and employment and the strategic transport network.

This question references only drainage but the scope of the DWMP also includes wastewater and addressing environmental impacts. The proposed drivers focus only on future change but should also include the identified need in the period of the plan to resolve historical issues integral to drainage and wastewater functions. Currently, only 16% of England's waters are close to their natural state. At the current rate of progress/investment it will take over 200 years to reach the Government's 25 Year Environment Plan ambition of 75% of waters close to their natural state. Climate change and population growth makes achieving the target even harder. If we are to close the 'outcome gap' we need to do things differently. We would ask that an additional key driver be included, rising mine water levels. Work has already been undertaken to produce maps which identify areas where the ground water levels are higher than the sewer network. The sewer network from this work has been banded into 3 risk categories. We suggest that areas of the network banded amber and red be included into the Brava hydraulic models. Rising mine water levels will affect the capacity of sewers and contribute to increased flooding events, environmental deterioration, and a compliance risk to the effected STW's. It will also have an impact on the supply and provision of clean water supplies. As the DWMP has the same strategic aims as we are working towards with the CA, we strongly recommend that rising mine water be considered as a key driver so this work can move forward in an integrated way instead of being separately considered.

Yes

It's also really important to engage with developers throughout this process and look to get high quality SuD's into new development that both reduce flood risk and have a positive environmental impact. The long term maintenance and mangagement is also key, NWG's efforts towards adoption are central to improvement this area.

Northumbrian Water response to comments:

It is anticipated that by planning a prioritised programme of work for PR24, economic growth will naturally follow improved drainage infrastructure. The DWMP includes new development in the future scenarios. The BRAVA and optioneering will identify best value options which may enable an element of current work that can be built on over time. At this stage, we do not have the time or data to include rising minewater in the DWMP, however we will raise the query at national level to see if it can become an element of DWMP in future rounds.

Question 5

Q5	Planning	P14	Are these Planning Objectives relevant to your organisations?
	Objectives		Through a number of stakeholder meetings, we have taken on board comments that the language used is sometimes difficult to convey what the Planning Objectives mean to individual organisations. Would it be more appropriate to refer to the Planning Objectives as Outcomes? Would you have any suggestions on how to better articulate these terms, so that they are relevant to your organisation and easy to understand?

Consultee Responses

All objectives are directly or indirectly relevant to us.

This is probably an example of the fact that the wording is difficult to convey what the Planning Objective means, but I would suggest that Planning Objective PO8 should read 'Reduction of risk to Wastewater Treatment Works and Intermittent Discharge permit Compliance rather than Improvement of.....

The term planning objective can mean different things to other organisations, it would be clearer if the DWMP referred to key delivery outcomes to enforce what is trying to achieve. Whilst I understand that PO3 describes the water industry standard metric and is recommended for DWMP, it seems like a missed opportunity not to align with other risk management authority and key funding stream metrics i.e FCERM GiA.

We understand the meaning of the Planning Objectives. The objectives α uld be more specific. The terms reduction and improvement are qualitative and could be met by an incremental change over an unspecified times α le. We recommend that the percentage of reduction or improvement or achievement of a target perhaps related to industry best practice or AMP 7 ODIs should be adopted, and by a target year. It may be assumed this is the period of the DWMP but it α uld be longer for more difficult issues. We recommend PO5 is amended to "water body WFD status" to provide a more holistic objective aligned with statutory WFD. The proposed PO5 objective identifies an acceptance that drainage and waste water activities impact on rivers beyond the bounds of NWG's infrastructure assets. This objective would seem to relate with the stated aim to, 'seek to work across these planning objectives to understand how multiple benefits α no be achieved by managing flows in a different manner and optimising performance of existing infrastructure.'

Yes

Northumbrian Water response to comments:

The term Planning Objective arises from the Framework Document. We do acknowledge that it can mean different things to different people so we are endeavouring to rename the categories for a wider audience. We recognise that more than one Planning Objective can relate to different issues and this is set out in our BRAVA and Problem Characterisation methodologies which are in the process of being finalised.

As a first step, we believe that the POs broadly sit under three main umbrella terms – Flooding, Environmental and Wastewater Treatment. Please refer to **Appendix B** for our initial work on simplification of the Planning Objectives.

Question 6

Q6	Planning	P15	Are the suggested planning horizons adequate? Do they offer
	Horizons		the right balance between short/medium and long term planning needs to be identified? Are these aligned to your organisation's strategic horizons?

Consultee Responses

Our Vision 2011-2031, Our Emerging Local Plan due to be adopted 2021 and will run to 2036.

The planning horizons are adequate, it is important that the key focus is on the short and medium deliverables, with a feel for a long term version and strategic aspirations

We would agree that the planning horizons are adequate. We are happy that NWG have decided to align the planning timescales with the WRMP. Would it be feasible for the climate change uplifts to be applied at any shorter time scale?

Yes

Consideration of the FCERM (draft) Strategy, 25 year Environment Plan, Surface Water Management Action Plan 2018.

Northumbrian Water response to comments:

The application of climate change uplifts from 2030 onwards was agreed industry-wide. This could be revisited at project-level should an issue progress as a partnership project.

Question 7

Q7	Planning Tools	P17	Are the tools mentioned above beneficial to your organisation? Are there other tools that you might use currently or are in the process of developing which you think would be relevant?
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Consultee Responses

All objectives are directly or indirectly relevant to us.

The tools mentioned are useful, local authorities also hold local information including flooding and asset capture information, which maybe of assistance and can be shared.

Network Hydraulic models – Could the ground water input be incorporated into these Network Hydraulic models, in the same format as tidal and non-tidal influences. Work has already been undertaken to split the predicted ground water height against NWGs network into 3 boundaries. Receiving water quality models – SAGIS is a good tool but currently is limited to Phosphorus, a new run of the SAGIS model will include Nitrates and ammonia, and metals Data. Current timescales are, updates in by September 2020, Model build 6 months October to March 2021, Model calibration 6 months April 2021 to September 2021. NWG is helping to trial the new version. Is NWG intending to run no other water quality models? Will all the EDM data be supplied to incorporate the impact of the current frequency of spill, from Storm and CSO discharges? Will the results from the SOAF investigations be incorporated into the optioneering and outputs some are scheduled for completion by 2021? Why will there be no consideration for climate change impact and potentially lower flows in receiving watercourses? A publication is due in April on the change in flows over time due to climate change and population growth. The water resources team may have had early site of this document (Will Robinson) which could be useful for the modelling exercise. WWTW Capacity models – some work has already been done on WWTW capacity and planned growth deterioration on the environment, can these be updated and rerun using the new WFD classifications released in April? Will the accumulation of smaller sites closing and a newly designed larger works be considered in the options outputs where capacity and environmental harm from growth are identified, rather than just surface water removal? Option optimiser – Will the option optimiser consider the capacity and frequency of CSO spills as well as internal and external flooding? If so will this be assessed to the Tyne, Wear and Tees formula or to formula A?

Yes

Refreshed data sharing agreements would be useful.

Northumbrian Water response to comments:

We have considered incorporating ground-water levels into the hydraulic model but do not feel it is appropriate. The issue is that the level would be assumed and could mask real issues when scenario testing. We would also need information on pump-rates and when the pumps are on/off where minewater is concerned. These are valid points which could be discussed nationally and considered for future rounds of DWMP. We are in close contact with Laura Dixon and Sue Horsfall to ensure that the DWMP work and the SAGIS tool are complementary and fit into Business as Usual. Where WWTW capacity is highlighted as an issue this will come out of the BRAVA and go into the optioneering phase of the DWMP. CSO spills form part of the DWMP assessments.

Question 8

(Q8	Reporting	P18	Are the above reporting requirements suitable? Would you
		Structure		prefer a paper based platform to share the findings or would a
				web based spatial platform be more appropriate? Could you share with us any good examples of such platforms?
				chare with dearly good examples of such platforms:

Consultee Responses

An update at the L2 level of governance would be useful for each SPA - is there a potential to include this as an appendix or will this information be shared through the SPG? A web based platform would be most appropriate to share findings.

The reporting requirements should as versitile as possible to allow a range of different stakeholders to access the platform. Electronic platforms are great and preferred to paper based but consideration needs to be given to the ICT limitations and restrictions of stakeholders in particular local authorities and other Government organisations.

The use of both a web based platform for visual and mapping outputs and a document for the detail of the plan. A web based platform for both these options would be preferable.

Yes

Northumbrian Water response to comments:

We are working on a web-based platform which will be accessible by partners. The intention would be to implement a range of permissions depending on level of User to enable people to look at an overview and drill down into the detail as appropriate.

Question 9

(Q9	Proposed	P20	If identified on the above table, would you be happy to be
		Strategic		engaged further? If identified but not having been confirmed,
		Planning Group		could you provide a contact detail for your organisation? And
				lastly if not identified and you would like to be part of the
				Strategic Planning Group, or would like to make a suggestion of
				who should be, what would be the best way for us to engage?

Consultee Responses

We would be happy to engage further with a view to assessing the time and resource requirement in being a stakeholder on the SPG. Additionally it would be useful to have somebody from NW to present to all relevant internal contacts to ensure they is an understanding council wide.

The LLFA's are propsed to be represented through the chair of NIDP, would it not be appropriate to engage the chairs of the strategic groups to ensure the sub regions are properly represented? The LLFA contacts within each Authority should be able to provide links to the Planning and Highways departments, within their Authority depending on the specific requirements.

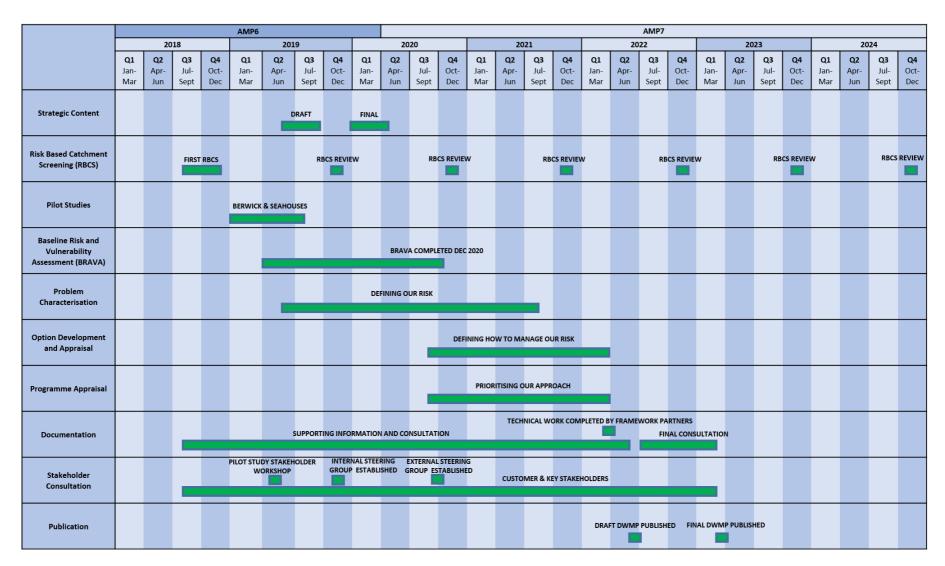
There are currently 3 people listed representing us as stakeholders. As there are currently lots of people and different teams which could potentially be involved as stakeholders please limit the main contact to 1 individual who will liaise with the national, and internal teams to feedback to Northumbrian water. When the structure of the governance and strategic planning groups are more clearly outlined, additional staff could be named on this.

Yes

Northumbrian Water response to comments:

Comments noted. We agree that having too many representatives can become unwieldy so having a single contact for each authority would be helpful. If the information is based on a web-platform, it should be easy to keep people informed of what is available and seek comments.

APPENDIX A PROGRAMME



APPENDIX B
PLANNING OBJECTIVES

FLOODING

- PO1 Internal Flooding
- PO2 External Flooding
- PO3 Resilience

ENVIRONMENTAL

- PO4 Bathing Water Quality
- PO5 River Water Quality
- PO6 Pollution

WASTEWATER TREATMENT

- PO7 Asset Health
- PO8 Compliance

APPENDIX C GLOSSARY

AMP Asset Management Period or Plan

BRAVA Baseline Risk and Vulnerability Assessment

CAF Capacity Assessment Framework

CSO Combined Sewer Overflow

DWMP Drainage and Wastewater Management Plan

L1 Northumbrian Water Group Northern Operating Region
 L2 Strategic Planning Areas (Northumberland, Tyneside etc)

L3 Northumbrian Water Group Drainage Areas

LEFA Lead Local Flood Authority
LPA Local Planning Authority

NIDP Northumbria Integrated Drainage Partnership

NWG Northumbrian Water Group
PC Performance Commitment

PO Planning Objective

PR Periodic or Price Review

RBCS Risk Based Catchment Screening

RBD River Basin District

RMA Risk Management Authority

SOAF Storm Overflow Assessment Framework

SPA Strategic Planning Area
SPG Strategic Planning Group

SuDS Sustainable Drainage Systems

WINEP Water Industry National Environment Programme