Drainage and Wastewater Management Plan

Register of Stakeholder Comments

July 2022

Version 0.1





Date	Source	River Basin	Specific location	Topic	Response	Ref:
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	Storm overflows and effluent quality are extremely critical in this catchment as many are located in, or discharge to, highly sensitive water-dependent designated areas. Sites must not fail meeting the HabsReg, SSSI or other designated site requirements through breaching permit levels or through frequent CSO spills due to increased growth and intense rainfall affecting the networks.	We hope and expect the DWMP to address all these issues as the plans come to fruition. In the interim, we will comply with the permits set by the EA.	1
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	Work collaboratively to agree long term outcomes that all want to see and use the planning objectives to measure progress in achievement of those outcomes.	Our DWMP is promoting greater collaboration and partnerships, as well as long term planning to secure wider environmental outcomes.	2
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	Develop a set of overarching principles and strategic objectives to guide the DWMP process that all could sign up to.	Our level 1, regional DWMP sets out a strategic approach and the principles that we need to apply as we deliver drainage and wastewater investment / services.	3
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	DWMPs are not statutory but should conduct an HRA, SEA and a WFD assessment in the first round if possible.	We are undertaking an SEA of our DWMP that will incorporate Habs Regs and WFD assessments. We have published a draft SEA report with our draft DWMP.	4
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	DWMPs must align with and underpin statutory plans, including Defra's 25-year Environment Plan.	This is our intention.	5
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	Much of the effluent produced is pumped out to sea. If somewhere else could be found to store it, it could potentially contribute to solutions on the scarcity of water resources for the WRMP.	We are working with our colleagues developing the WRMP to look into the potential for greater water and effluent re-use.	6
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	One single document cannot cover all the issues from flooding and pollution, growth and development to land management schemes, environmental, social and economic impacts and benefits. A mechanism to bring all these together should be developed.	We agree but hope and intend the DWMP will provide the right mechanism to bring together these issues.	8
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	The interrelationship between development, drainage and surface waters and the impact of these on the sewers, road and rail infrastructure must be considered in the round.	We have highlighted in our DWMP the need to look at managing rainwater at source including runoff from roads, roofs and new development.	9
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	The potential impact of coastal erosion on SWS's coastal assets and the disruption to services could be severe. The size and scale of the problem needs to be anticipated and assessed for early intervention in areas of managed retreat. Data could be gathered from the Shoreline Management Plans and Coastal Strategies.	Understanding the impact of coastal erosion on our assets has been deferred to the next round of DWMPs. This will allow us to work with the Environment Agency and local councils to obtain data on predicted rates of coastal erosion and develop a robust methodology for an assessment of current and future risks.	10
07/09/2020	Workshop 1	East Hampshire	Regional	An objective on SuDS and policies on adoption, or creation, of those designed to the CIRIA guideline could help overcome resistance at new builds. It would underpin achieving environmental net gain through the DWMP and improve resilience of the water environment to increasingly intense storm events and droughts.	We are working closely with our future growth team to develop these types of policies to guide future development.	11
07/09/2020	Workshop 1	East Hampshire	Regional	Broader consideration of the risks and actions required could show that natural solutions such as wetland and habitat creation at the end of the sewer outfalls provide solutions.	We will look to develop these sorts of schemes as part of the DWMP.	12
7/09/2020	Workshop 1	East Hampshire	Regional	Developers are looking at pricey measures such as buying up agricultural land in perpetuity to offset nitrate. It may be more cost effective for them to fund nitrate removal plants.	Thank you for the information. We will look into this to see if there are other approaches we can collectively take.	13

Register	of Stakeho	Ider Comments	relevent to the	whole of our operating area		
Date	Source	River Basin	Specific location	Topic	Response	Ref:
07/09/2020	Workshop 1	East Hampshire	Regional	Lots of organisations are actively involved in the land drainage and water management space including statutory bodies, catchment partnerships, farmers and interest groups. Collaborative working has the potential to provide a positive approach to planning and developing shared solutions.	We agree and welcome any opportunity to work in partnership with relevant organisations	14
07/09/2020	Workshop 1	East Hampshire	Regional	The pollution risk objectives needs to cover the nitrate issues, and other sources such as agricultural and leachates.	We agree and we have also included objectives on groundwater protection, nutrients and GES in the DWMP.	15
07/09/2020	Workshop 1	East Hampshire	Regional	Wetland creation at sewer outfalls, rather than discharging direct to water bodies, could be used to improve water quality.	We will look to develop these sorts of schemes as part of the DWMP.	16
07/09/2020	Workshop 1	East Hampshire	Regional	Where SuDS are not possible, thought must be given to separating surface water drainage from the foul sewers.	We want to separate surface water from foul drainage wherever possible. We hope to work in partnerships to identy locations where this is possible.	17
07/09/2020	Workshop 1	East Hampshire	Regional	Growth and the much needed development planned within the catchment means that an objective is urgently needed to reduce nitrate and achieve nutrient neutrality.	GES and NN objectives are now incorporated into the DWMP	18
07/09/2020	Workshop 1	East Hampshire	Regional	Modelling could be even more future proofed by modelling a 1-in-100 or even 1-in-200 year storm event.	We incorporated this by developing a 'bespoke' company objective and methodology for 'Annualised Flood Risk' - see BRAVA outputs and subsequent consideration in the DWMP.	19
7/09/2020	Workshop 1	East Hampshire	Regional	None of the Water UK metrics appear to cover eutrophication issues.	GES and NN objectives have been incorporated into the DWMP	20
07/09/2020	Workshop 1	East Hampshire	Regional	Planned growth in the region needs to ensure nitrate neutrality to avoid further deterioration of the designated waters and other waterbodies.	GES and NN objectives have been incorporated into the DWMP	21
07/09/2020	Workshop 1	East Hampshire	Regional	The longer term strategy must be to develop partnerships and creative solutions that address wider issues such as misconnections, leachate, agricultural land and road drainage.	We agree and will be actively looking to develop partnerships to create shared, multi-sector benefits.	23
07/09/2020	Workshop 1	East Hampshire	Regional	The permits set by the EA may need to become tighter to prevent deterioration of waterbodies.	We are expecting them to be more stringent and will comply with the permits set.	24
07/09/2020	Workshop 1	East Hampshire	Regional	Thinking should be turning to effluent storage and greywater recycling for use as a supplement to supply when needed, ensuring that water is not diverted from meeting the needs of the environment. This will improve resilience in all climate scenarios.	Yes, we are working with our WRMP team to explore ways to make this	25
08/09/2020	Workshop 1	Adur & Ouse	Regional	Address CSOs spills by building resilience into the system through surface water management including SuDS such as storage ponds and rain gardens.	We will be looking to develop and deliver sustainable Nature Based Solutions to the issues identified wherever possible.	26
08/09/2020	Workshop 1	Adur & Ouse	Regional	Droughts will mean less water in receiving rivers to act as an effluent dilutant. This is not accounted for in the metrics but needs to factored into the thinking on the way water as a whole is managed in the catchment. Managing the risk of drought could be modelled alongside flooding	We are liaising with the Water for Life team within Southern Water on how we can look more holistically at water issues and better manage droughts.	27
08/09/2020	Workshop 1	Adur & Ouse	Regional	Modelling more extreme events would help the LLFA and Highways Agency to understand the risk of associated surface water flooding, for which they are responsible, as well as the impact on infiltration of SWS sewer systems.	We will develop an Annualised Flood Risk objective for hydraulic overload which whould help all concerned with modelling for future extreme events and managing associated surface water flooding.	28
08/09/2020	Workshop 1	Adur & Ouse	Regional	Sewer exceedance impacts CSO (Combined Sewer Overflows) spills and consequently the environment. Consideration must be given to the best way to manage water that can't enter the sewer system or it will further exacerbate surface water flooding and pollution. Reducing the impact of CSOs through surface water management and separating foul and surface water drains	We agree and will look to do this through sustainable means whever possible.	29

Date	Source	River Basin	Specific location	Topic	Response	Ref:
8/09/2020	Workshop 1	Adur & Ouse	Regional	SuDS such as rain gardens should be utilised widely across the catchment.	We will look to work with partner organisations to find suitable locations for SuDS.	30
08/09/2020	Workshop 1	Adur & Ouse	Regional	Surface water flooding and land drainage in non-mains connected rural areas can cause sewer infiltration and overloading in urban areas. Working with partners including drainage engineers on improving surface water management is a must.	We will explore the potential to work in partnership with the relevant organisations	31
8/09/2020	Workshop 1	Adur & Ouse	Regional	The DWMP needs to make a significant contribution to achieving GES	We understand the importance of achieving GES and are taking it into consideration as part of the DWMP	32
8/09/2020	Workshop 1	Adur & Ouse	Regional	The DWMP must 'read across' into other plans such as local council development plans, Target 100, pollution reduction plans, RBMPs and WFD.	Yes we agree and will be actively working towards this.	34
08/09/2020	Workshop 1	Adur & Ouse	Regional	Why is SW only running a 1-in-50 year AEP model for metric 6. It would be more sensible, given climate change and the increasing intensity of storms, to run a 1.333% AEP model (which equates to a 1-in-75 year storm) to represent an extreme or catastrophic failure.	We incorporated this by developing a 'bespoke' company objective and methodology for 'Annualised Flood Risk' - see BRAVA outputs and subsequent consideration in the DWMP.	35
9/09/2020	Workshop 1	Stour	Regional	Ammonia is screened out at WTWs, but not nitrate or microbial contamination, which are not arising from agriculture, but from discharges. Affinity and South East Water also abstract from the aquifers and they have also noticed problems. The issue needs to form part of the DWMP, should have a metric, and needs a strategy.	We are expecting our permits to become more stringent to protect the environment. We have included an objectives for groundwater protection in the DWMP as it is vital to protect this resource for our own water supply and that of neighbouring water supply companies.	36
9/09/2020	Workshop 1	Stour	Regional	More coordination between the DWMP and local plans is required, especially if DWMPs end up being statutory. Most local plans have growth forecasts to 2031 so would be useful for a mid-term assessment. However, the spatial distribution of growth beyond 2031 is not yet determined, and could involve additional urban extensions or freestanding settlements.	We agree and encourage a collaborative way of working between ourselves and relevant stakeholders to ensure these long term issues are taken into account.	37
9/09/2020	Workshop 1	Stour	Regional	Nature based solutions, including SuDS, slowing the flow, upstream storage, must be considered as part of the solutions to drainage, water infiltration, pollution, water quality as well as augmenting water resources.	We agree and will take this into consideration when developing the ODA	38
9/09/2020	Workshop 1	Stour	Regional	SWS needs to base its forecasts of housing and employment growth on over the 5 year period of the DWMP on LPA housing trajectory data to add robustness to the process.	We will look at how we can take this into consideration as we develop the DWMP.	39
9/09/2020	Workshop 1	Stour	Regional	A starting baseline needs to be agreed and a means of measuring targets, trends, timescales and milestones has to be established as well as factoring in consents and targets that will change through time.	The BRAVA assessment will provide the first baseline for the DWMPs.	40
9/09/2020	Workshop 1	Stour	Regional	A Strategic Environmental Assessment must be conducted during the first round of the DWMPs, along with the Habitats Regulation Assessment and WFD assessments.	We are running a 'light touch' SEA as part of the first cycle of the DWMP and are taking the WFD into account through an objective to achieve GES.	41
9/09/2020	Workshop 1	Stour	Regional	Climate change means the conditions are constantly changing and the separation of surface water drains from sewers is becoming critical. Surface (land and highways) drainage interactions with the sewer network incorporating climate change, rainfall (which has doubled since 2000) and growth scenarios need to be modelled. Managing surface water is critical to preventing exceedance of sewer capacity.	The modelling has incorporated climate change scenarios, predicted rainfall and growth.	42

Date	Source	River Basin	Specific location	Topic	Response	Ref:
09/09/2020	Workshop 1	Stour	Regional	Explain the difference between metric 3 discharge to sensitive waters Part A, and metric 4 discharge to sensitive waters Part B.	As part of the meeting notes we provided details of the difference between the metrics and showed where it is on our website. It is also explained in the DWMP FAQ on the website	43
09/09/2020	Workshop 1	Stour	Regional	Groundwater contamination by phosphate, nitrate and microbials from non-mains drainage is an emerging issue. It needs to be included as a planning objective	Preventing groundwater pollution is now an additional planning objective that will be applied to all the river basin catchments	44
9/09/2020	Workshop 1	Stour	Regional	It is crucial to align the DWMP with other plans including the WINEP programme to address cumulative impacts and dependencies which will enable more options to be considered at the appraisal stage.	The DWMP will be aligned with other plans including WINEP as much as possible in this first iteration.	46
09/09/2020	Workshop 1	Stour	Regional	Modelling flood risk for a lower return period such as a 1 in 20 year storm event would be of value in this catchment as it is particularly vulnerable to sewer flooding.	We incorporated this by developing a 'bespoke' company objective and methodology for 'Annualised Flood Risk' - see BRAVA outputs and subsequent consideration in the DWMP.	47
09/09/2020	Workshop 1	Stour	Regional	No WTWs have been flagged under metric 10 on WQ compliance, but the level of phosphorus (a cause of eutrophication) in effluent discharged to rivers in the catchment is too high. If phosphorus is too high it may mean that the permits for these site may need to be updated by the EA.	Southern Water is conducting a WINEP investigation into nitrate and phosphorous discharges during this AMP (2020 - 2025) and that will inform the next steps to be taken.	48
09/09/2020	Workshop 1	Stour	Regional	The DWMP needs to be aligned with the EA's Shoreline Management Plans to identify what infrastructure is at risk.	Understanding the impact of coastal erosion on our assets has been deferred to the next round of DWMPs. This will allow us to work with the Environment Agency and local councils to obtain data on predicted rates of coastal erosion and develop a robust methodology for an assessment of current and future risks.	49
09/09/2020	Workshop 1	Stour	Regional	The traditional way of identifying issues in one AMP, assessing and planning how to address these in the following AMP and then implementing in the next will not be adequate. It will take too long. It is critical to start the investment planning now and to have greater flexibility around funding schemes to ensure long-term outcomes can be met.	We agree with approach and will do our best to develop thinking and partnership schemes. However, we are bound by the government's Price Review and WINEP cycles before we know what funding we will have to implement schemes, in partnerships or otherwise.	51
10/09/2020	Workshop 1	Medway	Regional	Consideration must be given to the interaction with non-direct influences on SWS networks and surface water, such as the EA flood defences. There is the potential to work with EA and LLFAs to see where work programmes can be aligned.	We welcome any opportunity to work with EA and LLFAs to align work programmes as part of the DWMP	52
10/09/2020	Workshop 1	Medway	Regional	DWMPs need to be integrated with the WRMP (Water Resource Management Plan) for example, through effluent reuse schemes.	We will look at how we can better integrate the DWMP with the WRMP going forward. The WRMP has a number of effluent recycling pilots underway.	53
10/09/2020	Workshop 1	Medway	Regional	Surface water management could be the key to minimising issues such as tide locking - a problem when a receiving watercourse or the tide is high, sewer infiltration, sewer capacity, CSO spills and pollution.	Yes, we agree wholeheartedly. We want to work in partnership with relevant organisations to identify where we can separate surface water from our foul systems and other means of slowing the flow through Nature Based Solutions.	54
10/09/2020	Workshop 1	Medway	Regional	The gaps in the sewer network need to be either plugged or alternative solutions, such as first time drainage schemes or well managed SuDS schemes	We are actively considering how best to approach these issues.	56
10/09/2020	Workshop 1	Medway	Regional	Achieving nutrient neutrality is a key area for partnership working across sectors and should be an additional planning objective.	GES and NN objectives incorporated into the DWMP	57
10/09/2020	Workshop 1	Medway	Regional	Catchments should be flagged through to the BRAVA to investigate phosphate and other nutrient impacting the receiving waterbodies.	GES and NN objectives incorporated into the DWMP	58

Date	Source	River Basin	Specific location	Topic	Response	Ref:
0/09/2020	Workshop 1	Medway	Regional	Flood modelling should include more frequent 1-in-20 year events as well as the 1-in-50 in the guidance.	We incorporated this by developing a 'bespoke' company objective and methodology for 'Annualised Flood Risk' - see BRAVA outputs and subsequent consideration in the DWMP.	59
1/09/2020	Workshop 1	Rother	Regional	Budgets will always be a constraint on what can be achieved but if partners can develop multi-benefit schemes specific to the catchment's needs and each contribute relevant skills and resources then real progress can be made.	We agree and welcome any opportunity to develop multi-benefit schemes with relevant partners	61
1/09/2020	Workshop 1	Rother	Regional	Telemetric flow data records water quality and can inform compliance standards. These may need to flexed and made more stringent to allow for more intense conditions.	We recognise this and will comply with any permits set by the EA.	65
1/09/2020	Workshop 1	Rother	Regional	Blockages impact internal and external flooding as well as cause pollutions. The DWMP should show where campaigns can be targeted to reduce fats, oils, grease and wet wipes entering the sewers.	Our investment needs plan will identify target areas for campaigns.	66
1/09/2020	Workshop 1	Rother	Regional	SWS may need to plan for tighter permits to meet different weather conditions which will mean planning for increased costs.	We will comply with any permits set by the EA and we are expecting these to become more stringent.	67
1/09/2020	Workshop 1	Rother	Regional	There are no metrics covering groundwater pollution but there are indications that groundwater is becoming contaminated through direct discharges to ground in areas of the catchment that are not connected to Southern Water's sewers. It is vital that any new developments have appropriate connections into the mains sewers as a means of protecting groundwater.	Groundwater protection has been incorporated as additional objective in the DWMP	68
1/09/2020	Workshop 1	Rother	Regional	Working together will require an effort by all parties, as there are so many organisations involved. It is recognised that this round of DWMPs there is a limited window of opportunity as the timescales are tight but partnerships can identify areas of importance.	We will continue to collaborate with partner organisations throughout the development of the DWMP.	69
1/09/2020	Workshop 1	New Forest	Regional	Blockages are a cause for concern in the catchment and are the third highest risk. Work with the Catchment Partnership to raise awareness of the issue in key hotspots through their social networks.	We will explore the potential to work in partnership with the relevant organisations	70
23/09/2020	Workshop 1	New Forest	Regional	Cross reference the internal and external flooding metric results with EA knowledge of communities at risk of flooding and the development of the second round of FRMP's.	We will do this as the DWMP evolves.	71
23/09/2020	Workshop 1	New Forest	Regional	Find the best way to share and incorporate data and information from external organisations into the DWMP	We want to use the DWMP as a way to work collaboratively with external organisations and aim to find the best way to do this as we develop the programme	72
23/09/2020	Workshop 1	New Forest	Regional	Nature conservation needs to be factored in to the development of the DWMP to meet the government's 'green recovery' requirements.	We are actively doing this as part of the DWMP and intend to use NFM solutions where feasible when developing the ODA	73
23/09/2020	Workshop 1	New Forest	Regional	Should the permit thresholds should be more sensitive when discharging into watercourses and protected sites such as the SAC?	The EA determines our permits and will will comply with these as set. We expect them to become more stringent as we all work to protect and enhance the environment.	74
3/09/2020	Workshop 1	New Forest	Regional	Misconnections do not form part of the Water UK criteria but where they are found to be a significant factor to a catchment's water quality, this can and should be included as an additional objective. SW has a misconnections team that targets hotspot areas.	Misconnections will be considered as an additional objective in cycle 2 of the DWMP.	76

Date	Source	River Basin	Specific location	Topic	Response	Ref:
23/09/2020	Workshop 1	Arun & Western Streams	Regional	Several organisations monitor different aspects of the environment and hold extensive data. This should be shared to co-create holistic, natural solutions to land drainage such as 'slowing the flow' and SuDS	, , , ,	79
24/09/2020	Workshop 1	Arun & Western Streams	Regional	More extreme weather, land and surface water management need to be considered in combination	Yes - we are taking all these issues into account as the DWMP develops.	83
24/09/2020	Workshop 1	Arun & Western Streams	Regional	SW should have SMART objectives for the DWMP.	As a business, SW has SMART objectives for it's corporate commitments. The DWMP should naturally follow this direction. However, our DWMP prescribed 'objectives' are actually assessments of the risks from our assets which need addressing rather than objectives. This means we have assessed how best to reduce these risks. As the DWMP evoloves, setting true objectives and ensuring these are SMART will follow on	85
25/09/2020	Workshop 1	Isle of Wight	Regional	The DWMP should identify where tighter permits will be required in the longer term, although water quality modelling will be required to deliver this.		92
25/09/2020	Workshop 1	Isle of Wight	Regional	A key objective should be to de-carbonise SWS's delivery of its services.	SWS has a long-term objective to increase renewable regeneration to 24% by 2025 but it needs to go further and become carbon neutral.	95
25/09/2020	Workshop 1	Isle of Wight	Regional	The DWMP should go wider than delivering the WFD. It should be about delivering the Government's 25 year plan for the Environment, covering flooding, pollution and biodiversity net gain so we achieve GES.	This is one of the key objectives of the DWMP as well as for Southern Water.	96
25/09/2020	Workshop 1	Isle of Wight	Regional	With the Government push for more housing, we need to look at the balance of water and the whole life costs. The DWMP presents the opportunity to develop a high level strategy or plan for water, including recycling and re-capturing water.	Yes. We hope that this first cycle of the DWMP alongside it's 'sister' WRMP are providing the building blocks to deliver this.	97
29/09/2020	Workshop 1	Test & Itchen	Regional	DWMPs have 'drainage' in the name and therefore must look wider than concerns with the sewer network to incorporate other drainage	We agree. We are looking to use nature based solutions wherever possible to address the challenges ahead in the most sustainable way possible.	100
29/09/2020	Workshop 1	Test & Itchen	Regional	The capacity of combined sewer systems that drain both surface and foul water can be exceeded during extensive rainfall and extreme weather events and then excess storm water is discharged via CSOs. These discharges can impact the water quality of the rare chalk stream habitats. Reducing CSO spills by separating surface water drainage from foul will help address capacity issues and needs to be prioritised for early, collaborative action.	We totally agree and are looking to work in partnership to find suitable locations where separation can be achieved.	102
29/09/2020	Workshop 1	Test & Itchen	Regional	A key objective for the DWMP should be biodiversity net gain.	We are considering how to increase natural capital in any future scheme and expect it to become a formal objective in Cycle 2 of the DWMP.	103
29/09/2020	Workshop 1	Test & Itchen	Regional	impacts of growth, climate change and rising sea levels, and to ensure biodiversity net gain and carbon neutrality are core to its objectives.	We have developed a long term risk assessment as part of the DWMP which takes capacity, climate change, creep and the resilience of our assets into account. We expect to increase natural capital and rive down carbon as part of any sustainable approach to the issues. Carbon neutrality and biodiversity net gain were not part of the formal objectives in this first cycle of the DWMP but we will include them in subsequent cycles.	104

Date	Source	River Basin	Specific location	Topic	Response	Ref:
29/09/2020	Workshop 1	Test & Itchen	Regional	Permits need to be tightened to account for a reduction in the dilution of the effluent during periods of drought.	We will comply with any permits as set by the EA.	105
29/09/2020	Workshop 1	Test & Itchen	Regional	The DWMP should be ambitious and taken as an opportunity to create holistic approaches to long-term issues, and join up local delivery such as addressing water shortages and achieving carbon neutrality.	We agree and are working with our internal colleagues on the WRMP and intergrated catchment risk management, as well as external partners to develop an holistic approach.	106
29/09/2020	Workshop 1 - Simon Cramp	Test & Itchen	Regional	The recent Water Resources South East (WRSE) multi-sector resilience workshop introduced a strong environmental commitment. The objective is to capture water resource and water quality schemes across the region's catchment that can be included in the WRSE plan with the overall aim of improving the health of rivers and other waterbodies across the South East. The DWMP should incorporate similar objectives	This is one of SW's overall principles and a key ambition for the DWMP.	107
29/09/2020	Workshop 1	North Kent	Regional	Don't link objectives to compliance with permits – this is not enough. Opportunities need to be developed for SWS and the EA to work together to map out the future permit levels to protect the environment.	We want to use the DWMP to develop more robust ways of tackling issues such as non-compliance and welcome any opportunity to work together with the EA to map out future permit levels	108
30/09/2020	Workshop 1	North Kent	Regional	It is important to understand what everyone wants to achieve for the catchment and to not automatically see everything as a risk but as an opportunity to create synergies between the work of partner organisations to improve the local environment.	We agree. This is the approach we are taking with the DWMP	109
30/09/2020	Workshop 1	North Kent	Regional	Surface water needs to be managed in a different way in the future. Sustainable Drainage Systems (SuDS) could provide a solution to many of the issues highlighted by reducing pollutants such as nitrate and phosphate through filtration, slowing the flow through water attenuation and improving sewer capacity to minimise spills from CSOs.	We agree. However, the prescribed process means we have to take a risk based approach but are viewing the solutions as opportunities.	110
30/09/2020	Workshop 1	North Kent	Regional	Hazardous substances such as metals, pharmaceuticals, hormones, chemicals and micro-plastics are rising up the risk register for the water environment. Reducing the presence of these in the water environment should be an objective of the DWMP.	SWS is supporting the UKWIR (Water Industry Research) programme of investigations into the sources and impacts of these types of substances. These studies will not be completed in time to be included in this round of the DWMP but the findings will be incorporated in future rounds.	
30/09/2020	Workshop 1	North Kent	Regional	It would be helpful if SWS could consider modelling the current networks to a 1-in-50 year standard as well to be able to assess the likelihood of increased levels of flooding. Developing 1-in-20 year output from the hydraulic models would also assist in assessing the impact of more frequent acute events on the systems.	We incorporated a 'bespoke' company objective and methodology into the DWMP for 'Annualised Flood Risk' - see BRAVA outputs and subsequent consideration in the DWMP.	115
30/09/2020	Workshop 1	North Kent	Regional	Specific local objectives are needed for the DWMP. Identify where there are water quality problems, what is required to reach good ecological status, and the role of each organisation in reaching it.	GES and NN objectives incorporated into the DWMP. As the DWMP develops and is implemented, we expect local objectives to be developed for local sites .	116
30/09/2020	Workshop 1	North Kent	Regional	Thames Water has an ambition to share telemetry data and to put it on- line to be publicly and transparently accessible. SW should have the same ambition.	We already share and make publicly accesible our telemetry data on bathing waters via beachbuoy. We hope to extend this to inland waters in the near future.	117

Date	Source	River Basin	Specific location	Topic	Response	Ref:
30/09/2020	Workshop 1	North Kent	Regional	The nationally-set Water UK objectives are risks rather than objectives. However, to resonate locally, the national objectives need to be aligned to local concerns. A priority should be to identify locally important long-term outcomes and understand how these can be developed for this or future rounds of the DWMP.	As the DWMP develops and local schemes planned and planned, we expect local, long term objectives to be developed for local implementation.	118
27/04/2021	Workshop 2	Isle of Wight	Regional	FOG (fat, oils and grease) may be a factor in blockages at pumping stations.	We have identified investment needs for customer behaviour campaigns to address the issue of FOG on the Island (SAND.SC03.1 & SAND.SC03.2)	134
27/04/2021	Workshop 2	Isle of Wight	Regional	Drivers may be too simplistic: there are crossovers between the identified drivers. For example, pollution is not solely an operational driver and road runoff may also add pollutants to flood water.	Agreed.	136
27/04/2021	Workshop 2	Isle of Wight	Regional	Waters impacted by storm spills need to be identified in order to identify whether mitigation is required.	This has been undertaken as part of the CSO objective.	137
27/04/2021	Workshop 2	Isle of Wight	Regional	It is clear that the quantity of surface water entering the system causes stresses and with consequent links to pollution	Addressing surface water run off to prevent it entering the sewers is a key aim of the DWMP and we want to work in partnership with relevant organisations to find suitable locations where flows can be separated and / or slowed.	138
28/04/2021	Workshop 2	East Hampshire	Regional	We would like to understand more about PO1 Internal Sewer Flood Risk - being 'customer driven'. Is this about advertising to the public of items that should not be disposed in sewers - Wet Wipes, Fats, Oils, Grease?	Most of our internal floods are a result of blockages caused by FOG and unflushables in the sewer network therefore 'customer driven'	141
28/04/2021	Workshop 2	East Hampshire	Regional	PO8 Dry Weather Flow Compliance seems to be a matter governed solely by Southern Water. We would like to understand more about where we can offer input here - perhaps through local planning policy?	We encourage a collaborative approach to developing the DWMP and we welcome any contribution you can provide especially in Identifing opportunites for separation of surface and rainwater is a key priority for the DWMP.	143
29/04/2021	Workshop 2	Medway	Regional	Mitigating the impact of the discharges on receiving waters should be considered as it will build environmental resilience.	Our preference is tackle the issues at source but mitigating the impacts is also important. We will look to see where there are suitable location for implementation.	166
29/04/2021	Workshop 2	Medway	Regional	Reducing the impact of flooding on people's homes must be considered but it is, at best, a short-term measure whilst the longer term source solutions are implemented.	Agreed.	167
11/05/2021	Workshop 2	Arun & Western Streams	Regional	Cross boundary wastewater catchments need to include the appropriate authorities	We have collaborated with relevant authorities including the LLFAs and neighbouring water companies on cross-boundary catchments and these have input to the process.	191
11/05/2021	Workshop 2	Arun & Western Streams	Regional	The HRA and SEA should form part of the ODA as SW will be required to have these if / when the DWMP becomes statutory in the Environment Bill.	The SEA and HRA are not statutory at the moment but the DWMP national guidance states this is best practice and so we have incorporated them in the ODA stage.	192
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Regional	Investigate whether rainwater harvesting systems would be effective in reducing surface water inputs to combined sewer systems.	We will consider this when developing the ODA. Even small reductions to the volume of surface water entering the sewers are a step in the Iright direction.	204
20/05/2021	Workshop 2	Test & Itchen	Regional	The Highway Authority needs to be involved in addressing road run off for the DWMP process.	We agree and will be working with Highways Authorities to develop schemes to manage road run off as the DWMP is progressed.	277
20/05/2021	Workshop 2	Test & Itchen	Regional	The carbon costs of unnecessarily pumping clean water around the network needs to be incorporated into the DWMP.	We agree. Carbon costs / accounting will be incorporated into the next cycle of the DWMP.	278

Date	Source	River Basin	Specific location	Topic	Response	Ref:
20/05/2021	Workshop 2	Test & Itchen	Regional	Spill events should be expressed as the number of days rather than the number of events as one event can last for a long duration.	We tend to think that although counting the number and duration of events is valuable and is the traditional way of measuring compliance, measuring the impact of spills in terms of environmental harm is more important.	279
27/05/2021	Correspondence	Stour	Regional	Nutrient neutrality is a major blocker to the delivery of much-needed new homes. All catchments with very significant NN scores should be prioritised as 'red' or at the least, progressed forward. Proposed developments can mitigate by providing water efficiency measures or wetlands etc but these are only short term fixes and we are reliant on WTW upgrades.	We have selected our priority catchments based on a number of different factors including nutrient neutrality. We look forward to work with you on the DWMP regarding this in the next cycle.	300
01/07/2021	Correspondence	Adur & Ouse	Regional	We need to better understand the main causes of risks such as storm overflow performance – is it due to too much road and roof run-off or other major factors?	As part of the problem characterisation stage of the DWMP, we produced a 'narrative' for each of the 61 wastewater systems progressed in this cycle that shows the causes of the risks. For the A&O this is available at: https://www.southernwater.co.uk/dwmp/adurand-ouse-catchment/problem-characterisation-adur-and-ouse. We have produced these for each of our RBCs.	336
01/07/2021	Correspondence	Adur & Ouse	Regional	The investment strategies for some wastewater systems should be escalated from 'improve' to 'change'	We agree and will consider 'Change' strategies as part of cycle 2 of the DWMP.	337
03/08/2021	ODA meeting	Adur & Ouse	Regional	Many surface water drains are marked as private and this means surface water can only be drained into SW sewers - adding to the issue of hydraulic overload. A strategic review of who owns the sewers is needed.	We intend to conduct a survey of surfce water drains to calify ownership and would welcome working with the council and other interested organisations to implement this.	372
11/08/2021	ODA meeting	East Hampshire	Regional	Retrofitting separate surface water drains or building better and bigger systems is a challenge in historic, urbanised areas and very expensive. It may only be possible to look at solutions such as relining and improving the sewers already there.	Retrofitting surface water systems is a challenge and we appreciate it may not always be possible in historic urban areas so we will be looking at the best mix of solutions in these areas.	401
11/08/2021	ODA meeting	East Hampshire	Regional	The carbon costs of pumping flows across a large catchment should be taken into account so the total energy demand balance needs investigating. The use of alternative energies, such as solar panels and wind turbines, should be looked into.	Carbon costs are currently not part of the DWMP but we are keen to include it as part of the next cycle of the DWMP.	402
11/08/2021	ODA meeting	Test & Itchen	Regional	There is a legal requirement as set out in the Habitat Regulations to reduce the contribution of nutrient arriving at habitat site that is deemed to be deteriorating or are under threat.	We will be conducting a nutrient study for all wastewater systems that are hydrauligically connected with designated Habitat sites.	411
16/08/2021	ODA meeting	Test & Itchen	Regional	SW should work with the Local Authorities to address the issue of infiltration through private laterals.	We will continue to collaborate with all relevant authorities on resolving issues with private laterals.	417
16/08/2021	ODA meeting	Test & Itchen	Regional	The effect of H2S (Hydrogen sulphide) on the pumping stations and the sewers needs investigating.	The impact of H2S is being taken into account as part of the Sewer Collapse objective.	418
24/08/2021	ODA meeting	Cuckmere & Pevensey Levels	Regional	Could consider incentives to property owners to replace paved over front gardens with porous driveways, perhaps going as far as looking for storage tanks beneath these. Potentially target driveway contractors to incentivise SuDS and work with the local council to make porous surfaces a condition for planning consents.	We will work with the council to develop this and other similar schemes.	434

Date	Source	River Basin	Specific location	Topic	Response	Ref:
21/09/2021	ODA meeting	Arun & Western Streams	Regional	A nutrient budget is needed for the area to meet HabsRegs requirements. Understand how much SW is contributing and then calculate what this needs to be reduced by to be in a negative balance. This will help to restore the environment and its critical sites, especially in light of CC and growth. This will also require a review of consents with EA through WINEP.	We have identified an investment for a nutrients study encomapssing the harbours and coasts and will work with all relevant partners to investigate nutrients and develop a nutrient budget as part of the DWMP.	615
21/09/2021	ODA meeting	Arun & Western Streams	Regional	SW needs to address the problems at source to prevent the need to pump and treat wastewater and the strategy needs to identify the best location to take wastewater to for treatment.	Where possible we have aimed to tackle problems at source as part of the DWMP.	617
19/10/2021	ODA meeting	Arun & Western Streams	Regional	Better communication is needed between the developers, SW, planning authorities and Risk Management Authorities on all the issues, water resources and carbon reduction included. Developers need to be helped to be part of the solutions.	Yes, we agree. We hope the DWMP will lead to more integrated working arrangements in the future.	736
19/10/2021	ODA meeting	Arun & Western Streams	Regional	'Water neutrality' will drive changes on water efficiency and issues such as intelligent rain water harvesting. Strong, co-ordinated and consistent guidance and policies for adoption in the short term are needed whilst longer term, evidence-based solutions to increase resilience to all the pressures are developed.	We will explore short and long term approaches to water neutrality in cycle 2 of DWMP and more particularry as part of the WRMP.	737
19/10/2021	ODA meeting	Arun & Western Streams	Regional	Sewers in new developments should be future proofed, particularly the pipe joints to prevent infiltration. New development is supposed to have an effective lifetime of around 100 years so the sewer system needs to be made to last as long as the development does.	The Civil Engineering Specification for the Water Industry (CESWI) guidelines that we follow and use to provide advice to developers currently states that the "hydraulic design horizon for all pipes / sewers shall be 60 years; for outfalls, tunnels, 'strategic pipes / sewers', water pipes over 600mm and wastewater pipes / over 900mm, the design horizon shall be 100 years."	751

Date	Source	River Basin	Specific location	Topic	Response	Ref:
08/09/2020	Workshop 1	Adur & Ouse	Regional	Address CSOs spills by building resilience into the system through surface water management including SuDS such as storage ponds and rain gardens.	We will be looking to develop and deliver sustainable Nature Based Solutions to the issues identified wherever possible.	26
08/09/2020	Workshop 1	Adur & Ouse	Regional	Droughts will mean less water in receiving rivers to act as an effluent dilutant. This is not accounted for in the metrics but needs to factored into the thinking on the way water as a whole is managed in the catchment. Managing the risk of drought could be modelled alongside flooding.	We are liaising with the Water for Life team within Southern Water on how we can look more holistically at water issues and better manage droughts.	27
08/09/2020	Workshop 1	Adur & Ouse	Regional	Modelling more extreme events would help the LLFA and Highways Agency to understand the risk of associated surface water flooding, for which they are responsible, as well as the impact on infiltration of SWS sewer systems.	We will develop an Annualised Flood Risk objective for hydraulic overload which whould help all concerned with modelling for future extreme events and managing associated surface water flooding.	28
08/09/2020	Workshop 1	Adur & Ouse	Regional	Sewer exceedance impacts CSO (Combined Sewer Overflows) spills and consequently the environment. Consideration must be given to the best way to manage water that can't enter the sewer system or it will further exacerbate surface water flooding and pollution. Reducing the impact of CSOs through surface water management and separating foul and surface water drains.	We agree and will look to do this through sustainable means whever possible.	29
08/09/2020	Workshop 1	Adur & Ouse	Regional	SuDS such as rain gardens should be utilised widely across the catchment.	We will look to work with partner organisations to find suitable locations for SuDS.	, 30
08/09/2020	Workshop 1	Adur & Ouse	Regional	Surface water flooding and land drainage in non-mains connected rural areas can cause sewer infiltration and overloading in urban areas. Working with partners including drainage engineers on improving surface water management is a must.	We will explore the potential to work in partnership with the relevant organisations	31
08/09/2020	Workshop 1	Adur & Ouse	Regional	The DWMP needs to make a significant contribution to achieving GES.	We understand the importance of achieving GES and are taking it into consideration as part of the DWMP	32
08/09/2020	Workshop 1	Adur & Ouse	RBC's beaches	Upgrade WTWs to ensure the catchment's beaches achieve blue flag status and boost the local economies.	We have developed a Bathing Water objective and methodology to understand the best way to achieve this.	33
08/09/2020	Workshop 1	Adur & Ouse	Regional	The DWMP must 'read across' into other plans such as local council development plans, Target 100, pollution reduction plans, RBMPs and WFD.	Yes we agree and will be actively working towards this.	34
08/09/2020	Workshop 1	Adur & Ouse	Regional	Why is SW only running a 1-in-50 year AEP model for metric 6. It would be more sensible, given climate change and the increasing intensity of storms, to run a 1.333% AEP model (which equates to a 1-in-75 year storm) to represent an extreme or catastrophic failure.	We incorporated this by developing a 'bespoke' company objective and methodology for 'Annualised Flood Risk' - see BRAVA outputs and subsequent consideration in the DWMP.	35
13/05/2021	Correspondence	Adur & Ouse	Haywards Heath	Our data on groundwater issues in the vicinity of Haywards Heath suggests that infiltration is not likely to be a big issue for the catchment unless SW has specific data to the contrary. The predominantly clay geology means that elevated groundwater flows are restricted to areas of perched groundwater (possibly above SW assets) or where assets are associated with sandstone seams which are relatively limited. I will send you a link to the County wide study that we commissioned of groundwater.	Report received and is being taken into account.	215
18/05/2021	Workshop 2	Adur & Ouse	Scaynes Hill	The modelled baseflow (Scaynes Hill) is 25% of the volume but this was queried as the underlying geology is clay. Has the model has been verified and/or assumptions made about infiltration values?	We aim to continually improve and update our models where practicable and are looking into this as the DWMP progresses.	225

Date	Source	River Basin	Specific location	Topic	Response	Ref:
18/05/2021	Workshop 2	Adur & Ouse	Scaynes Hill	Reducing surface water will help with flooding and storm overflow performance. However, much depends of the localised geology. Scaynes Hill has a steep incline into the network and the flow routes could cause risks to the infrastructure and overloading of the system.	This will be revisited by SW and the LLFA.	226
8/05/2021	Workshop 2	Adur & Ouse	Scaynes Hill	The quality of wastewater entering the Scaynes Hill system needs to be improved as blockages caused by FOG and Unflushables are causing the greatest risks leading to sewer collapse.	We agree. Unfortunately, we were not able to progress Scaynes Hill in the first cycle of the DWMP although it remains one of our priority catchments. We will take this into account when we have the resources to continue with this system.	5
18/05/2021	Workshop 2	Adur & Ouse	Shoreham	WSCC is working with SW in the Shoreham catchment to understand the modelling methodology and capability to identify how much surface water is entering the system through manhole covers, how this links to flooding on the foul system and to share data and explore the issues in more detail.	We will consinue to work in partnership with WSCC and other relevant	228
18/05/2021	Workshop 2	Adur & Ouse	East Worthing	Further investigation is needed to both understand whether groundwater in East Worthing is causing infiltration into the network and whether sewer collapse is due to the condition of the network which could be causing infiltration.	We will investigate this further in cycle 2 of the DWMP	229
18/05/2021	Workshop 2	Adur & Ouse	East Worthing	The impact of discharges on receiving waterbodies in East Worthing should be mitigated even although river water quality has not been flagged. There could be opportunities to address episodic discharges from our assets and the EA would like to explore this further.	We agree and welcome the opportunity to work with the EA to explore this further	230
18/05/2021	Workshop 2	Adur & Ouse	East Worthing	Studies are needed for: a) additional data to reduce groundwater flooding issues: b) development of the hydraulic model: c) water quality monitoring and modelling and d) to determine any issues with discharges and the contribution of Nitrate and Phosphorous (the Ouse discharges into the SSSI and MCZ)	We have included an option addressing this in the ODA (ref WOEA.OT01.8)	231
18/05/2021	Workshop 2	Adur & Ouse	Peacehaven	Nutrient neutrality had been discounted during the BRAVA assessment, but nutrients and other pollutants coming from the works and storm overflows that discharge into the marine environment could be impacting on flora/fauna within the MCZ.	We are proposing to undertake a number of studies and investigations into nutrients at a water body level as part of the DWMP. We look forward to working with you on this in the future.	232
18/05/2021	Workshop 2	Adur & Ouse	Peacehaven	There are opportunities to work with the LLFA on introducing property level resistance to mitigate surface water flooding if SW consider funding the LLFA work in this area?	We will explore the opportunity to work with the LLFA	233
18/05/2021	Workshop 2	Adur & Ouse	Newhaven East	The BRAVA '0' for GES does not seem correct. The EA and SW need to work together to agree the data used for the assessment and how it could be improved for future rounds of the DWMP.	We welcome any opportunity to work with the EA to agree a more robust assessment criteria for future cycles of the DWMP	234
18/05/2021	Workshop 2	Adur & Ouse	Shoreham	Reducing groundwater levels in the Shoreham system should be considered and may need further investigation.	We have identified an investment need to ensure the integrity of our sewers in the catchment and rehabilitate those in poor condition to prevent infiltration and exfiltration (PORT.PW01.2).	235
18/05/2021	Workshop 2	Adur & Ouse	Goddards Green	Goddard's Green would benefit from targeted FOG communications.	We agree. Unfortunately, we were not able to progress Goddards Green in the first cycle of the DWMP although it remains one of our priority catchments. We will take this into account when we have the resources to continue with this system.	236

Date	Source	River Basin	Specific location	Topic	Response	Ref:
18/05/2021	Workshop 2	Adur & Ouse	East Worthing and Teville Stream	The EA Reasons for Not Achieving Good Ecological Status is not always up to date or accurate which may means the methodology for GES should be treated with caution. GES has not been assessed as at risk in East Worthing where bathing water is poor due to water quality so it may also be a significant risk for GES. The Teville Stream is also known to have bad status under the WFD but that is not recognised in the assessment.	The BRAVA for GES will be further developed in cycle 2.	237
18/05/2021	Workshop 2	Adur & Ouse	East Worthing	Combined sewers systems and misconnections in East Worthing are likely to be related to spill events as the combined sewers are not designed to take flows in this proportion.	Yes, we agree. One of the key aims of the DWMP is to reduce the volume of road and roof runoff entering the sewer system which is directly related to spills. We want to work with relevant organisation to find ways to imp	238
18/05/2021	Workshop 2	Adur & Ouse	East Worthing	Reducing the impact on properties from internal flooding is low cost and there have been a number of incidents due to blockages. Targeted work on blockages could help to reduce the incidents.	We agree. This will form part of our investment needs plan.	239
18/05/2021	Workshop 2	Adur & Ouse	East Worthing	As well as the water bodies receiving discharges, the marine environment must be seen as a receptor and the socio-economic impacts on shell fisheries taken into account.	Agreed and this is considered as part of the Shellfish waters objective.	240
18/05/2021	Workshop 2	Adur & Ouse	Peacehaven, Brigton sub-catchment	There is a high proportion of combined sewers within Brighton city centre and along the sea front and this reflects the high road and roof runoff inputs into the network.	Potential areas for upstream attenuation are being looked for.	241
18/05/2021	Workshop 2	Adur & Ouse	Peacehaven, Brigton sub-catchment	The operation and maintenance regime of the Interceptor sewer along Brighton sea front could be investigated to see whether it is contributing to bathing water issues in the catchment.	We will look into this as we progress the DWMP.	242
18/05/2021	Workshop 2	Adur & Ouse	Peacehaven, Brigton sub-catchment	Opportunities to mitigate the impact of effluent on receiving waters should be linked to a water re-use scheme in Brighton.	We are working internally within SW to align the WRMP and DWMP programmes.	243
18/05/2021	Workshop 2	Adur & Ouse	Peacehaven and Black Rock	Grit is a major issue at Peacehaven and Black Rock from road runoff and should be investigated.	We will look into this as we progress the DWMP.	244
8/05/2021	Workshop 2	Adur & Ouse	Peacehaven	Improving treatment quality, reducing demand and catchment management provides a longer term solution that mitigating the impact of effluent on receiving waters.	We agree and are actively looking for long term solutions as we move towards integrated catchment management.	245
18/05/2021	Workshop 2	Adur & Ouse	Peacehaven	The impact of microplastics need to be taken into account in the DWMP.	Microplastics are not taken into account in this cycle of the DWMP. UKWIR is currently undertaking a study of the impacts and best ways of approaching the issue. This will be published later in AMP7 and it is best to wait until publication to prevent duplication and understand what could provide effective solutions.	246
18/05/2021	Workshop 2	Adur & Ouse	Newhaven East	The condition of underground assets is impacting on the risks of both sewer collapse and groundwater pollution within the SPZ (Source Protection Zone). These two objectives are interlinked and a resolution of the condition of the assets would have dual benefit.	We agree and have identified investment needs to assess the condition of our sewers and protect groundwater (NEWE.PW01.2 & NEWE.PW01.4).	247
20/05/2021	Correspondence	Adur & Ouse	East Worthing and Shoreham	I note that both East Worthing and Shoreham are identified as yellow prioritisation. I agree that these should be prioritised in the first round of DWMPs. The amount of problems we currently see in these areas is substantial and with future growth will only get worse if not tackled soon.	Thank you. Both catchments have been progressed through the ODA.	288

Date	Source	River Basin	Specific location	Topic	Response	Ref:
21/05/2021	Correspondence	Adur & Ouse	East Worthing	I would like to help with the generic options identification for both the East Worthing and Shoreham catchments.	We will continue to collaborate with all partners that have been working with us throughout the development of the DWMP and any relevant others as advised.	289
17/06/2021	Correspondence	Adur & Ouse	Adur & Ouse	It is clear which wastewater systems have the most significant risks in terms of the size of population, but what about the risks to wildlife and the proximity to designated areas?	As part of the DWMP we have undertaken an Environmental Impact Assessment for our design options. We are also looking at Nutrient Neutrality and Good Ecological Status issues as part of the DWMP.	335
01/07/2021	Correspondence	Adur & Ouse	Regional	We need to better understand the main causes of risks such as storm overflow performance – is it due to too much road and roof run-off or other major factors?	As part of the problem characterisation stage of the DWMP, we produced a 'narrative' for each of the 61 wastewater systems progressed in this cycle that shows the causes of the risks. For the A&O this is available at: https://www.southernwater.co.uk/dwmp/adurand-ouse-catchment/problem-characterisation-adur-and-ouse. We have produced these for each of our RBCs.	336
01/07/2021	Correspondence	Adur & Ouse	Regional	The investment strategies for some wastewater systems should be escalated from 'improve' to 'change'.	We agree and will consider 'Change' strategies as part of cycle 2 of the DWMP.	337
Adur & Ouse East Worthing, Tarring, Salvington, Brook Close, Ham Road and West Parade East Worthing, There are clusters of flooding issues but generally widespread across whole area. SW should work wexplore how to reduce additional loadings from room impermeable surfaces at a) Tarring – a recognised Close, Ham Road and West Parade although thes	There are clusters of flooding issues but generally these are quite widespread across whole area. SW should work with A&W Council to explore how to reduce additional loadings from roofs, roads and other impermeable surfaces at a) Tarring – a recognised flood area, b) Brook Close, Ham Road and West Parade although these are not known or recognised flood areas, and c) Salvington Road where the whole area	uncil to to reduce additional loadings from impermeable surfaces in the relevant areas b) Brook own or				
03/08/2021	ODA meeting	Adur & Ouse	East Worthing, Salvington	There are infiltration issues at Salvington which also means exfiltration is likely and it overlays a couple of drinking water catchments. There is a need to identify exactly where the areas overlap and if it poses any risks to drinking water.	We have identified an option to ensure the sewer systems do not cause risks to the drinking water protection zones (ref: WOEA.PW01.2)	358
03/08/2021	ODA meeting	Adur & Ouse	East Worthing, Tarring and West Durrington	The EA's Flood Risk Management (FRM) strategy for both West Durrington and West Tarring will be updated over the next year or two. There is a flood and coastal management plan for the area. The EA, LLFA and SW need to work together on these plans and ensure all issues are taken into account and addressed.	We welcome the opportunity to work together with the EA and LLFA to ensure relevant issues in West Tarring and West Durrington are taken into account and addressed in the upcoming flood and coastal management plan	359
03/08/2021	ODA meeting	Adur & Ouse	East Worthing WTWs	There is a significant tunnel system which goes along the seafront then inland towards the hospital area and the WTWs in East Worthing which, during rainfall events, provides storage. The capacity of the tunnel is reduced due to siltation which has also impacted the works inlet screens and impacted the inlet pumping station. Regular maintenance is needed as well as a combination ways to attenuate flows above ground, such as SuDS and raingardens.	We have identified that an enhanced maintenance programme is needed across the catchment which should address the issues highlighted (ref: WOEA.SC03.1)	360
03/08/2021	ODA meeting	Adur & Ouse	Lancing Green	There is significant storage potential at the Lancing system but there are issues where the sewer flows into the works so all the manhole covers and screens need checking. The foul system needs to be reverted to a dry weather flow only system without surface water misconnections.	The enhanced maintenance programme (ref: WOEA.SC03.1) should help address some of the issues highlighted and the SW misconnections team will continue to identify misconnections and address these. However, the potential of storage at Lancing and reverting the system to DWF only may need to be progressed in cycle 2	361

Date	Source	River Basin	Specific location	Topic	Response	Ref:
03/08/2021	ODA meeting	Adur & Ouse	North Lancing	North Lancing is affected by groundwater. Recent clearing of the river has helped with drainage and regular maintenance would reduce flooding in the future.	Again, the enhanced maintenance programme (ref: WOEA.SC03.1) should address the issue.	362
03/08/2021	ODA meeting	Adur & Ouse	Worthing	Internal flooding is an issue on the sea frontage at Worthing with 85% identified as caused by blockages. Food establishments are already targeted by the SW FOG Team and significant investment in smart networks which trigger alarms when a potential blockage is detected has been shown to be effective. Smart censors need to be installed in the high street and other areas.	A customer education programme (ref: ref: WOEA.SC03.1) and CCTV surveys (ref: WOEA.PW01.2) have been identified to address the issues.	363
03/08/2021	ODA meeting	Adur & Ouse	Broadwater, East Worthing and Brooklands	CSOs are operating within permits but the coast and high quality bathing waters are critical to the local visitor economy. The impact of CSOs and the volume of runoff in the sewers needs to be addressed by working with highways and the Council to find somewhere else for runoff to drain to. Of particular concern are; a) the Broadwater and East Worthing outfalls discharge into the Teville Brook which is tide locked for long periods so the flow is not discharged. Broadwater needs investigation to understand why is it spilling and issues with the East Worthing outfall could be linked to storage and screens; b) Brooklands outfall is very obvious when it spills as it smells strongly and the flow is	The work on Storm Overflows as part of the DWMP has been taken further as part of the work by Southern Water's Storm Overflow Taskforce. We are complying with Defra's current guidance. We will also re-evaluate storm overflows as part of the next cycle of the DWMP.	364
03/08/2021	ODA meeting	Adur & Ouse	Worthing beaches	Dog / bird mess on the beaches is the likely cause of poor status of the bathing waters as significant investment to resolve misconnections has already been made. However, this is on ongoing issue for SW and the Council to resolve.	We will continue to work with the council to address the issues on Bathing Waters.	365
03/08/2021	ODA meeting	Adur & Ouse	Long and short sea outfalls	The long sea and shortsea outfalls need to be checked to ensure there are no issues.	The work on Storm Overflows as part of the DWMP has been taken further as part of the work by Southern Water's Storm Overflow Taskforce. We are complying with Defra's current guidance. We will also re-evaluate storm overflows as part of the next cycle of the DWMP.	366
03/08/2021	ODA meeting	Adur & Ouse	Adur & Ouse	SW to work with the LPA to deveop a carefully worded position statement to help LPA respond to applications and ensure drainage from roofs and roads of new developments is no longer permitted.	We will work with the LPA to develop a position statement addressing this	367
03/08/2021	ODA meeting	Adur & Ouse	Adur & Ouse	A review of the 'Right to Connect' policy for new development would be very valuable and it could be used to influence government policy.	We are actively looking into influencing government policy on the Right to Connect. We have published a wide range of information for developers on our website in line with the current guidelines: https://www.southernwater.co.uk/developing-building/planning-your-development	368
03/08/2021	ODA meeting	Adur & Ouse	Adur & Ouse	Many areas across West Sussex are subject to high groundwater. Developers do not consider whether a higher standard of sewer construction is needed in these areas. Controls on development need to be strictly applied and applied across whole catchment. SW could help by developing tighter sewer design guidance for the LPAs to apply	We welcome any opportunity to work closely with LPAs to ensure tighter sewer design guidance will be adhered to	369

Date	Source	River Basin	Specific location	Topic	Response	Ref:
03/08/2021	ODA meeting	Adur & Ouse	Lancing, Sompting and Findon	Some of the sewers are structural grades 4 & 5 and this is of great concern where they overlay the Source Protection Zone (SPZ) which is used for water extraction. The SPZ extends from Lancing and Sompting northwards to Findon under the golf course and the college. Contamination through exfiltration is a risk so sewer condition must be checked and relined where needed. The ground water capture zones in East Worthing spread further than the SPZ used in the BRAVA assessment and should also be taken into consideration when improving sewers to reduce groundwater pollution.	We have identified an option to ensure the sewer systems do not cause risks to the drinking water protection zones (ref: WOEA.PW01.2)	370
03/08/2021	ODA meeting	Adur & Ouse	Lancing	Natural flood management schemes may not be possible around Worthing although there may be opportunities in Lancing. SW to work with the Council to identify potential locations for SuDS and other water attenuation schemes.	We welcome any opportunity to work with the council to identify NFM schemes in Lancing and will explore this further in cycle 2 of the DWMP	371
03/08/2021	ODA meeting	Adur & Ouse	Regional	Many surface water drains are marked as private and this means surface water can only be drained into SW sewers - adding to the issue of hydraulic overload. A strategic review of who owns the sewers is needed.	We intend to conduct a survey of surfce water drains to calify ownership and would welcome working with the council and other interested organisations to implement this.	372
31/08/2021	ODA meeting	Adur & Ouse	Shoreham	WSCC have been using the SW model to investigate the impact of sea level rise on the outfalls from the surface water system. They are keen to collaborate to develop options in the Shoreham area.	We will work with WSCC to develop options in the Shoreham area.	477
01/09/2021	ODA meeting	Adur & Ouse	Shoreham area and the Green	Groundwater risks are not illustrated on the maps. Exfiltration of sewage into the groundwater is thought to be a problem. The SW Catchment Risk Management team identified high nitrate levels in the groundwater. Exfiltration has been considered to be a potential source of the risk. Localised issues, especially in "The Green" area, with ilnfiltration / exfiltration need to be investigated.	We are working alongside the catchment team and will investigate any issues concerning groundwater contamination and the possible impacts of sewer infiltration and exfiltration.	478
01/09/2021	ODA meeting	Adur & Ouse	Shoreham area and the Green	The surface water sewers in the Green area are listed as private sewers. Developers cannot connect new properties into private sewers, and hence connect into the foul/combined sewers. Could SW take ownership of the private surface water sewers so developers cannot connect into them.	We are looking into ways to address the issue of private sewers.	479
01/09/2021	ODA meeting	Adur & Ouse	South Downs	Surface water sewers follow the course of old winterbournes so investigate whether issues of hydraulic overload can be tackled at source upstream on the South Downs.	We will want to work with relevant parties to understand where schemes such as this could be developed and implemented.	480
01/09/2021	ODA meeting	Adur & Ouse	Swiss Gardens, the Meads and allotments	Surface water flooding occurs in the "Swiss Gardens" area near the public house and there are concrete channels for surface water drainage. There are some open spaces in the Meads and the allotments area that may present some opportunities for SuDS. Resolving the problems here would benefit from a joint working approach	We will work with the council to determine the potential opportunities.	481
01/09/2021	ODA meeting	Adur & Ouse	Brighton Road, Shoreham	Tide locking is an issue for surface water management in the harbour area of Brighton where high tides can cause storm outfalls to be tide locked for 2 to 4 hours. There are opportunities to work with developers and WSCC on a major re-development proposal to make use of SuDS and prevent rainwater getting into the foul, and where possible, the surface water system	We will explore this opportunity with relevant parties as the proposal develops.	482

Register	Register of Stakeholder Comments for the Adur and Ouse River Basin Catchment						
Date	Source	River Basin	Specific location	Topic	Response	Ref:	
01/09/2021	ODA meeting	Adur & Ouse	Shoreham area and the Green	There are a few flooding issues at the northern end of the Green and groundwater flooding occurs when groundwater levels are high. This needs to be investigated.	We will looking into the impact that high groundwater has on flooding in the area.	483	
01/09/2021	ODA meeting	Adur & Ouse	Brighton Road, Shoreham	Upstream attenuation could resolve flooding issues so opportunities for attenuation should be investigated.	We will work with the council to determine the potential opportunities.	484	
08/09/2021	ODA meeting	Adur & Ouse	Brighton	Warmdene and Tongdean are known areas for hydraulic issues.	We have included options which address these areas in the ODA (ref BRIG.PW01.8 and BRIG.PW01.12)	547	
09/09/2021	ODA meeting	Adur & Ouse	Brighton	Brighton is generally quite built up so it is challenging to find areas to implement SuDS although there is potential for BCC to retrofit in parks. Encouraging rain gardens and water butts could be helpful to address roof run off and there is the potential for installing water tanks in public building and harveting rain in farms and plant nurseries.	We are actively looking for opportunities for SuDS and will work with partners who can advise us of suitable locations.	548	
09/09/2021	ODA meeting	Adur & Ouse	Brighton	Work with the highways authority to incorporate attenuation tanks for the highway runoff.	We have included options addressing this in the ODA (ref BRIG.PW01.6 to BRIG.PW01.12)	549	

Date	Source	River Basin	Specific location	Topic	Response	Ref:
23/09/2020	Workshop 1	Arun & Western Streams	Regional	Several organisations monitor different aspects of the environment and hold extensive data. This should be shared to co-create holistic, natural solutions to land drainage such as 'slowing the flow' and SuDS.	, , , ,	79
24/09/2020	Workshop 1	Arun & Western Streams	Arun Valley	The Arun Valley has numerous environmental designations but the water quality is too poor to be used to support the protected species and it affects the health of the river environment. Improving the capacity of the sewer system to cope with planned growth whilst improving the management of land drainage systems to separate surface water drainage from foul water networks will help to reduce CSO discharges. This could support improving water quality.	We have identified numerous investment needs to address capacity and growth issues as well as a nutrient study for the Arun Valley and wanting to use nature based solutions to tackle surface water run off. Together, these should help to improve water quality in the area to support and improve local biodiversity.	80
24/09/2020	Workshop 1	Arun & Western Streams	Ford WTWs	Changes to odour levels may impact on proposed residential development at Ford.	This assessment has been carried out by the developer and submitted as part of their application. SWS is in the process of reviewing the application to ensure its robustness and that all other factors, for example, other waste processing industries in the vicinity, have been taken into account.	81
24/09/2020	Workshop 1	Arun & Western Streams	Ford WTWs	Ford WTWs will have to expand. The development site masterplan wraps closely around the existing site, which raises issues connected with land take.	Thank you for the information. We will consider the implications as we progress the DWMP.	82
24/09/2020	Workshop 1	Arun & Western Streams	Regional	More extreme weather, land and surface water management need to be considered in combination.	Yes - we are taking all these issues into account as the DWMP develops.	83
24/09/2020	Workshop 1	Arun & Western Streams	Pagham Harbour	Nitrate is not currently an issue in the Arun catchment but indicators are being carefully monitored because of the associated impacts on the internationally designated Pagham Harbour nature reserve. There is significant growth planned which needs to be managed to avoid increased nitrate levels.	We have indentified the need to invest in nutrient studies for the Arun	84
24/09/2020	Workshop 1	Arun & Western Streams	Regional	SW should have SMART objectives for the DWMP.	As a business, SW has SMART objectives for it's corporate commitments. The DWMP should naturally follow this direction. However, our DWMP prescribed 'objectives' are actually assessments of the risks from our assets which need addressing rather than objectives. This means we have assessed how best to reduce these risks. As the DWMP evoloves, setting true objectives and ensuring these are SMART will follow on.	85
24/09/2020	Workshop 1	Arun & Western Streams	Thornham, Sidelsham and Loxwood	Thornham, Sidlesham and Loxwood are all close to reaching their permit levels already with some existing commitments still to be delivered. These need to be flagged for progression to the BRAVA stage in terms of DWF risk.	Both Thornham and Sidlesham were taken forward into the BRAVA and subsequent stages of the DWMP. We have committed to taking Loxwood forward when resources are available.	86
10/05/2021	Workshop 2	Arun & Western Streams	Pagham, Loxwood	Pagham and Loxwood have capacity issues. The level of growth shown in the table particularly for Pagham looks very low and it's not	Thank you for your comments regarding growth in this catchment. We will take this into account as we progress the design process and as part of the future DWMP cycles.	177
1/05/2021	Workshop 2	Arun & Western Streams	Horsham	Surface water run-off and flooding needs to be controlled. WSCC has a study on using Horsham Pond to help manage flooding and keep water out of the sewers which shows the Pond could be pivotal to managing the surface water system through slowing and managing the flow.		178

ate	Source	River Basin	Specific location	Topic	Response	Ref:
1/05/2021	Workshop 2	Arun & Western Streams	Bosham	Bosham should be included. It is reasonably close to Chichester and some wastewater could be transferred from the Chichester catchment to the Bosham catchment area.	Bosham has been included in the prioritisation	179
1/05/2021	Workshop 2	Arun & Western Streams	Petersfield	Groundwater infiltration is higher than usual in Chichester and sewer infiltration is much higher In Petersfield than in Ford.	Thank you. We will take this into consideration as we progress the DWMP	180
1/05/2021	Workshop 2	Arun & Western Streams	Chichester	'Improve' might not be an appropriate investment strategy for Chichester. A 'change' strategy is already underway in terms of the transfer pipeline to Tangmere. Further change may be needed.	Change strategies will be considered further in cycle 2 of the DWMP.	181
1/05/2021	Workshop 2	Arun & Western Streams	Chichester	Flow monitoring may help to identify where there are particular pressure points in the network in order to make targeted improvements. Revisit the surface water investigation work done a few years ago.	Thank you. We will take this report into account.	182
1/05/2021	Workshop 2	Arun & Western Streams	Chichester	Lateral drains have been demonstrated to be contributing the most to infiltration, but this means customers need to fix private pipes. SW could consider charging them more for higher inputs into the sewer network as an incentive to repairing the pipes.	Thank you for your suggestion. It is not likely that we could charge these customers more, especially in the current climate. However, we are investigating the best ways to address the issue of pripvate sewers as the problem is fairly widespread across our region.	183
1/05/2021	Workshop 2	Arun & Western Streams	Horsham	The risk banding for wastewater treatment works compliance may need to be reviewed given the growth planned in the catchment, and that compliance is already close to the set limit.	Yes. Growth forecasts have been taken into account as we have developed the DWMP. We will comply with any subsequent permit changes that are needed.	184
1/05/2021	Workshop 2	Arun & Western Streams	Horsham	Nutrient neutrality is significant in relation to growth. The Arun Valley SSSI and SPA sites in the floodplain are not directly connected to the Arun but the future of these sites is uncertain as the flood defences protecting them may not be maintained in the long term. Climate change could result in the defences being breached (intentionally or otherwise) and causing the ecology of the sites to change. Future options could, for example, include managed realignment of defences to create a more sustainable floodplain. However, the sites will only be allowed to flood intentionally if the water quality is good enough to create a functioning wetland.	We have identified an investment need for a nutrient study in the Arun Valley (HONE.OT01.2).	185
1/05/2021	Workshop 2	Arun & Western Streams	Ford	Misconnections are a problem in relation to bathing waters at Ford.	Our misconnections team investigates misconnections on a continuous basis to tackle the issue at source.	186
1/05/2021	Workshop 2	Arun & Western Streams	Ford	Specific FOG hot-spots should be targeted.	We have identified numerous FOG hotspots and have an invetstment need to address the issue (FORW.SC03.1).	187
1/05/2021	Workshop 2	Arun & Western Streams	Ford	Continuous discharges of final effluent from Ford needs investigating to see if this affects the quality of bathing waters.		188
1/05/2021	Workshop 2	Arun & Western Streams	Lidsey	There are bathing water issues linked to misconnections at Lidsey.	Our misconnections team investigates misconnections on a continuous basis to tackle the issue at source.	189
1/05/2021	Workshop 2	Arun & Western Streams	Lidsey	Wastewater flows could be transferred from Lisdey to Ford - linked to new developments in the Ford catchment.	This is not currently being considered but we will monitor capacity at Lidsey and plan to take action where and when needed.	190
1/05/2021	Workshop 2	Arun & Western Streams	Regional	Cross boundary wastewater catchments need to include the appropriate authorities.	We have collaborated with relevant authorities including the LLFAs and neighbouring water companies on cross-boundary catchments and these have input to the process.	191
1/05/2021	Workshop 2	Arun & Western Streams	Regional	The HRA and SEA should form part of the ODA as SW will be required to have these if / when the DWMP becomes statutory in the Environment Bill.	The SEA and HRA are not statutory at the moment but the DWMP national guidance states this is best practice and so we have incorporated them in the ODA stage.	192

Date	Source	River Basin	Specific location	Topic	Response	Ref:
11/05/2021	Workshop 2	Arun & Western Streams	Lidsey	Conduct further research on nutrient neutrality once the Natural England condition assessment has been completed to understand the implications and the type of studies needed.	This will be undertaken and findings implemented once the NE conditions report is available.	193
12/05/2021	Correspondence	Arun & Western Streams	Arun & Western Streams	Regarding the comparision between Objectives 4 and 7 ie 1 in 20 storms in 2020 compared to 2050. If the % contents of the water received at the WTW is 16% baseflow (ground water infiltration) and 73% other infiltration (37% road runoff and 36% roof runoff), the remaining 9.1% was the actual foul content from houses. The foul content is expected to reduce to 8.4% by 2050, not only because there will be more houses connected but because the overall volume of water will be much greater due to climate change increased rain. I understand that the SW official infiltration rate is quoted as 10%, because that is the expected value at new housing developments. Surely the infiltration rate is 90%, based on the data above? Where is the discrepancy in the definition of the meaning of infiltration?	Our methodology for developing the planning objectives can be found on our website at: https://www.southernwater.co.uk/dwmp/baseline-risk and-vulnerability-assessment. We will take your comments into account as we progress our design options and as part of future DWMP cycles	201
13/05/2021	Correspondence	Arun & Western Streams	Chichester / Apuldram	In the discussion, there was clear mention of a pipeline from Tangmere to Chichester . My understanding is that (1) the new pipeline being built runs from Tangmere round the north of Chichester city, towards the large new housing development at Whitehouse Farm and (2) there is no built pipeline yet that goes south round Chichester city, towards Chichester WTW (ie Apuldram WTW) in the south-west and that (3) this southerly pipeline might be part of a future long-term alternate strategy to increase the capacity at Chichester WTW. Which of these is correct, if any?	We have evaluated a number of possible options as part of the DWMP. Our investment needs can be found on our website.	202
18/05/2021	Correspondence	Arun & Western Streams	Horsham	I undertook to share the work that the LLFA had undertaken in relation to Horsham Pond that we consider may be relevant to the DWMP (in terms of reducing urban flooding and therefore stormwater infiltration of the foul system) downstream. I would be happy to share any further information on the Horsham Pond study and be happy to be involved in identifying plans for the Horsham catchment.	Report received and is being taken into account.	216
18/05/2021	Correspondence	Arun & Western Streams	Coldwater, Waltham Brook LNR, Hardham and Amberley	It was interesting to understand how the process is being handled and how it works, but it does not have a major impact on my work. I would have been more interested in the impact of the Water Treatment Works at Coldwaltham and how it impacts on the Internationally protected sites locally, including Waltham Brooks Nature Reserve and Hardham. I am sure from my observations that there is nutrification of the ditch network there caused by the effluent from the works. However due to a low population in the area, this made it low risk and low priority. I would disagree with this analysis. I would also be interested in the impact of water abstraction in the area on the Internationally protected sites, such as Waltham and Amberley	These areas are not being progressed in cycle 1 of the DWMP but will be looked into when resources allow. However, the DWMP will be evolving and expanding to encompass all our wastewater assets over time. Please keep checking our website	217

Date	Source	River Basin	Specific location	Topic	Response	Ref:
19/05/2021	Correspondence	Arun & Western Streams		I would like to see Bosham included because it is reasonably close to Chichester and whether some wastewater could be transferred from the Chichester catchment to the Bosham catchment area.	Bosham was progressed to the ODA.	248
21/05/2021	Correspondence	Arun & Western Streams	Loxwood	Bosham is shown as only "Moderately Significant" for nutrient neutrality despite Chichester and Thornham which also feed directly into Chichester Harbour being classed as Very Significant. There are capacity issues at Pagham and Loxwood so these should also be prioritised. The level of growth particularly for Pagham looks very low and it's not clear if our latest thinking on development distribution has been taken into account together with the schemes in Arun.	We have developed a methodology for selecting our priority catchments that includes the risk of nutrient neutrality. We are proposing to undertake nutrient studies and investigations as part of this cycle of the DWMP.	293
26/05/2021	Correspondence	Arun & Western Streams	Loxwood and Chichester	Pleased to see that Chichester and Thornham are in the priority list. However, Bosham is shown as only "Moderately Significant" for nutrient neutrality and "Green" despite Chichester and Thornham which also feed directly into Chichester Harbour being classed as "Very Significant" and "Yellow" – is this correct?	Chichester, Thornham and Bosham have all progressed to the ODA.	294
26/05/2021	Correspondence	Arun & Western Streams		I would be very pleased to help with the Chichester (Appledram) catchment and also Siddlesham, should it 'come on board'. I would be available to work with you between June and November this year.	We have included both Chichester (Appeldram) and Sidlesham catchments in the ODA and will collaborate with all partners that have been working with us throughout the development of the DWMP and any relevant others as advised.	299
28/05/2021	Correspondence	Arun & Western Streams		There are significant capacity issues at Loxwood and as a result issues with foul flooding (based on anecdotal reports). You know your catchments better than me, but I would have expected/hoped it would have been prioritised.	Loxwood had been prioritised to progress to the ODA stage of the DWMP but has had to be postponed. We will progress it when resources are available.	318
01/06/2021	Correspondence	Arun & Western Streams	Sidlesham and	I'm generally happy with the prioritisation, and specifically the identification of the Chichester, Sidlesham and Thornham catchments as high priority.	Thank you for confirming this.	319
01/06/2021	Correspondence	Arun & Western Streams		I would be happy to be involved / help with all of the Chichester DC based catchments, my interest would be focused on the impact from and on surface water drainage.	Thank you. The impact of surface water drainage on our foul systems is emerging as one of the key issues that needs to be addressed. We will continue to collaborate with all partners that have been working with us throughout the development of the DWMP and any relevant others as advised.	320
01/06/2021	Correspondence	Arun & Western Streams	Horsham area	There is an issue with the Barns Green area with a proliferation of traveller sites to the west / south west that are not serviced by any foul main sewer. I foresee this as being problematic going forward if some form of provision is not made for expansion of demand from the G&T population.	Thank you for highlighting this catchment growth to us. We will consider how best to address this as part of our next DWMP cycle.	323
13/09/2021	ODA meeting	Arun & Western Streams		92% of flow in the system is derived from surface water (rainwater runoff). There should be potential to divert the rainwater into streams / natural drains to help remove the pressure on the system.	We will work with relevant organisations to find ways to achieve this.	562

Date	Source	River Basin	Specific location	Topic	Response	Ref:
13/09/2021	ODA meeting	Arun & Western Streams	Horsham	A discussion is needed on the Warnham network to see if there's a possibility of pumping the waste to Horsham.	We have included an option addressing this in the ODA (ref HONE.OT01.5)	563
13/09/2021	ODA meeting	Arun & Western Streams	Horsham	Investigate sewer conditions to identify causes of high number of spills.	We will explore this in cycle 2 of the DWMP	564
13/09/2021	ODA meeting	Arun & Western Streams	Horsham	Need to reduce blockages so identify hotspots and implement an enhanced customer awareness programme.	We have included an option addressing this in the ODA (ref HONE.OT01.6)	565
13/09/2021	ODA meeting	Arun & Western Streams	Horsham	There is no sewerage infrastructure at Barns Green. The area generally has a growing traveller population. It is not over a SPZ but there is a deep borehole water supply. A solution such as reed beds needs to be developed.	We have included an option addressing this in the ODA (ref HONE.OT01.7)	566
13/09/2021	ODA meeting	Arun & Western Streams	Horsham	WSCC is looking at the potential for SuDS sites but these may not be too effective in clay catchments. However, there is lots of potential for permeable paving, schemes in schools, storage and other imaginative solutions to attenuate flows.	We will take this into consideration while developing the ODA and welcome any opportunity to work with WSCC regarding potential SuDS sites.	567
21/09/2021	ODA meeting	Arun & Western Streams	Regional	A nutrient budget is needed for the area to meet HabsRegs requirements. Understand how much SW is contributing and then calculate what this needs to be reduced by to be in a negative balance. This will help to restore the environment and its critical sites, especially in light of CC and growth. This will also require a review of consents with EA through WINEP.	We have identified an investment for a nutrients study encomapssing the harbours and coasts and will work with all relevant partners to investigate nutrients and develop a nutrient budget as part of the DWMP.	615
21/09/2021	ODA meeting	Arun & Western Streams	Tangmere	CSOs need a strategy – groundwater levels are very high and there is a lot of rainwater also getting into the system.	We agree and will explore the impact of high groundwater in cycle 2 of the DWMP	
21/09/2021	ODA meeting	Arun & Western Streams	Regional	SW needs to address the problems at source to prevent the need to pump and treat wastewater and the strategy needs to identify the best location to take wastewater to for treatment.	Where possible we have aimed to tackle problems at source as part of the DWMP.	617
21/09/2021	ODA meeting	Arun & Western Streams	Tangmere	Ratham Lane area is reliant on tankering and this is an issue for local residents.	We understand that tankering can be very stressful for our customers and is not what they should expect from us. This is a temporary solution whilst we look into resolving the issues.	618
21/09/2021	ODA meeting	Arun & Western Streams	Arun & Western Streams	SW to check its infiltration models for accuracy as the baseflow modelling does not seem to be of the same quality across all our systems. However, this may depend on groundwater (GW) levels.	We will have an opportunity to develop our models for cycle 2 of the DWMP.	619
21/09/2021	ODA meeting	Arun & Western Streams	Chichester and surrounding systems	To manage growth in the short term, develop a joint position statement between LAs and SW on NN and tighter controls on planning issues relating to SuDS / water harvesting / recycling to help address meeting government targets.	Our Future Growth Team works with the planning authorities develop position statements where and when these are needed. We have published information for LPAs and developers on our website at: https://www.southernwater.co.uk/developing-building/planning-your-development covering all the relevant issues, and are soon to publish a Sustainable Development policy.	620
21/09/2021	ODA meeting	Arun & Western Streams	Arun & Western Streams	As part of the DWMP, SW needs to look much wider than its own assets to develop integrated solutions and an area-wide strategy that covers multiple issues such as stopping water entering the sewer networks, green solutions to attenuate flows, rainwater harvesting, retrofitting systems, improving permeability, flexible pipes to replace sewers. SW needs to address the problems at source to prevent the need to pump and treat wastewater and the strategy needs to identify the best location to take wastewater to for treatment.	We agree. Integrated catchment management on a spatial scale is evolving currently and we hope to work with relevant organisations as this develops as part of the DWMP.	621

Date	Source	River Basin	Specific location	Topic	Response	Ref:
21/09/2021	ODA meeting	Arun & Western Streams	Arun & Western Streams	Groundwater pollution may be an issue where systems overlay SPZs (Source Protection Zones). Risks to this need to be addressed. Replace and reline sewers in these locations as a priority.	High spillers and exfiltration is being taken into account as a priority wherever there are SPZs.	622
21/09/2021	ODA meeting	Arun & Western Streams	Chichester	Infiltration issues are linked to the high spilling storm overflows – replacing and relining may provide a solution. When pipes need replacing, flexible pipes should be used to avoid damage from natural ground movements.	We follow the current Civil Engineering Specification for the Water Industry (CESWI) guidelines when renewing / replacing systems. However, we will consider the merits of using flexible pipes to prevent damage due to land movements.	623
21/09/2021	ODA meeting	Arun & Western Streams	Lavant	Lavant is not flagged for internal flood risk but there are documented issues. There are known risks in wet years due to hydraulic overload. SW to check its incident records database.	Sewer infiltration in the Lavant catchment was an issue 10 years ago and extensive re-lining was undertaken. However, this investment does not seem to have resulted in an improvement so this needs to be investigated.	624
21/09/2021	ODA meeting	Arun & Western Streams	Langstone Harbour	Recycle effluent for reuse to provide benefits all round and to end the discharge into Langstone Harbour.	We have a number of effluent recycling pilot schemes in development and will use these pilots to assess the benefits, including customer acceptability and environmental impact before adopting more widely.	625
21/09/2021	ODA meeting	Arun & Western Streams	Tangmere	There are privately owned sewers that need maintaining / repairing. Need to consider how to address this issue in future DWMPs.	We will look into this issue in cycle 2.	626
21/09/2021	ODA meeting	Arun & Western Streams	Arun & Western Streams	A detailed strategic assessment is required for the catchment. One overall approach that also incorporates water resource issues to create a master plan.	Yes - we agree and are moving towards integrated catchment management drawing in all the relevant issues as the DWMP and WRMP evolve.	627
21/09/2021		Arun & Western Streams	Chichester and surrounding systems	SW could consider combining all sewer catchments into a super catchment and discharge via a long sea outfall.	We will investigate the potential for this.	629
30/09/2021	ODA meeting	Arun & Western Streams	Pagham	Explore the option of transferring wastewater for treatment elsewhere due to predicted growth in the system and the environmental constraints on expansion of the works discharging into designated waters.	We have included an option addressing this (ref PAGM.OT01.6)	654
30/09/2021	ODA meeting	Arun & Western Streams	Sidlesham	Pinks Lane area has serious infiltration issues resulting in significant tankering every time it rains. The sewers should be investigated with a view to relining. A serious flooding and sewage back up (ongoing for years) caused by the pumping station. A joint position statement on how this will be addressed is needed and private sewers also contribute to infiltration and need to be addressed.	We have included an option addressing this in the ODA (ref SIDL.OT01.8)	655
30/09/2021	ODA meeting	Arun & Western Streams	Manhood Peninsular	The area has internationally important wetlands and there is huge potential to increase and create more wetlands whilst providing flooding solutions. The Manhood Peninsular doesn't have the infrastructure to support industry but it does for green tourism and community groups. This would be a positive way forward and could encompass solutions to all the issues.	We would love to work with you on developing more nature based solutions in this area as we progress the design options.	656
30/09/2021	ODA meeting	Arun & Western Streams	Sidlesham	All Agencies (the County and Local Councils, EA, NE, SW) need to work together to tackle climate change, sea level rise, flooding, water resources, water quality, and biodiversity and habitat loss, and funding schemes need to be pooled to make an integrated programme come together. Consider the potential to use the system as the first total catchment scheme. The challenge would be how to take this forward together.	We will explore the potential to work in partnership with the relevant organisations.	657

Date	Source	River Basin	Specific location	Topic	Response	Ref:
30/09/2021	ODA meeting	Arun & Western Streams	Sidlesham	An interim solution for Sidlsham could be to develop a LLFA / SW / LPA shared approach to development and provide a position statement for developers on what is expected to protect the environment and existing residents.	Chichester and Thornham WTWs have Position Statements because they are environmentally constrained by their existing N permits to accommodate further growth beyond their DWF permits. These Position Statements have been jointly agreed with the EA. However, Sidlesham is not currently environmentally constrained so it will be solely Southern Water's responsibility to provide additional capacity for new development at this works as and when it is needed without the need for a Position Statment.	658
30/09/2021	ODA meeting	Arun & Western Streams	Sidlesham & Pagham	DWF takes into account the catchment population – but it does not include seasonal tourism. There is a very high seasonal influx of people. Caravans have a high annual occupancy of around 25,000 and this increases by some 10,000 in summer months. There is a need to understand whether the caravan park is connected to the mains or discharges into Pagham Jagoon	This has been passed to the DWMP technical team who will be in touch to dicuss further and identify where the caravan pak discharges to.	659
30/09/2021	ODA meeting	Arun & Western Streams	Sidlesham	'Bitty' solutions are not the way forward unless they are part of a wider total spatial catchment scheme. What's needed is much wider thinking than just SW's wastewater system. Environmental enhancement the best form of improving resilience for the area economically, environmentally and socially.	Integrated catchment management on a spatial scale is evolving currently and we hope to work with relevant organisations as this develops as part of the DWMP.	660
30/09/2021	ODA meeting	Arun & Western Streams	Sidlesham and Pagham	Does the overall design of systems need to be changed as there are so many environmental constraints and capacity issues? A more comprehensive solution is needed taking economic and social solutions into account.	We agree and are an active part of the Harbours group which is considering all these aspects.	661
30/09/2021	ODA meeting	Arun & Western Streams	Sidlesham and Pagham	Land drainage systems such as ditches/culverts must be maintained in good working order to minimise siltation and flooding.	An enhanced maintenance programme will be incorporated into the DWMP where needed.	662
30/09/2021	ODA meeting	Arun & Western Streams	Sidlesham	Dry Weather Flow (DWF) permit at the works is forecast to be exceeded by 2050. The capacity could be increased but work is needed to identify what will it comprise and where will it be.	The DWF permit is set by the EA and we work together to understand when the permit will need to change to accommodate future growth.	663
30/09/2021	ODA meeting	Arun & Western Streams	Sidlesham & Pagham		We are looking at the best mix of solutions for each specific location and rainwater harvesting is likely to be part of the solution.	664
19/10/2021	ODA meeting	Arun & Western Streams	Lidsey WTW	Nitrate is highlighted as significant risk but GES (Good Ecological Status) is also an issue. A permit for Phosphate may be needed. Although the discharges from Tangmere have recently improved, the Aldingbourne Rife is effectively failing WFD standards and Lidsey should take this into account in terms of planned development.	We will take the condition report into account when it is available and / or in cycle 2.	731
19/10/2021	ODA meeting	Arun & Western Streams	Solent and Dorest Coast SPA	Natural England is conducting a condition assessment of the Solent and Dorset SPA which covers a very widespread area of the coast - part of which is already under threat. It stretches all the way to the other side of Poole and is one of very few SPAs which is totally marine focused. SW must check the condition assessment report to understand if the status has been updated. Permits may need to be reduced as a result	We will investigate this further in cycle 2 of the DWMP. The condition assessment was yet to be completed at the time the BRAVA assessment was taken into consideration.	732

Date	Source	River Basin	Specific location	Topic	Response	Ref:
9/10/2021	ODA meeting	Arun & Western Streams	Lidsey WTW	The Lidsey DWF permit will soon be exceeded and this could also be a constraint on planned new housing sites. Lidsey is one of Arun's growth areas so it could have significant impact on DWF or the need to improve capacity and potentially be a constraint on growth.	2050 so we have identified an investment need to review the permit	733
9/10/2021	ODA meeting	Arun & Western Streams	Littlehampton & Bognor Regis	There is older infrastructure in the catchment that is not being used. A strategy to look at what infrastructure is available that could be refurbished and used to support development, help attenuate flows, reduce the impact on bathing water quality around the SPA and Littlehampton / Bognor should be undertaken.	Reusing and repurposing older infrastructure is an important sustainability goal we are aiming for. Investigations into the use of appropriate existing infrastructure will take place later on in the design process. We hope to work with relevant partn organisations to help identify possible options during this time.	734
9/10/2021	ODA meeting	Arun & Western Streams	Barnham, Eastergate and Westergate	Long term, Lidsey might be linked to the Ford catchment. In the past, effluent discharge permits and capacity for recent and planned new development has been discussed, and it may be necessary to divert flow from Lidsey to Ford for treatment to serve major developments at Barnham, Eastergate and Westergate, approximately 3,000 homes. This would need a new and very long rising main and a new pumping station	Thank you for raising this. We will take this forward as we progress the design process. We look forward to working with you on this in the future.	735
9/10/2021	ODA meeting	Arun & Western Streams	Regional	Better communication is needed between the developers, SW, planning authorities and Risk Management Authorities on all the issues, water resources and carbon reduction included. Developers need to be helped to be part of the solutions.	Yes, we agree. We hope the DWMP will lead to more integrated working arrangements in the future.	736
9/10/2021	ODA meeting	Arun & Western Streams	Regional	'Water neutrality' will drive changes on water efficiency and issues such as intelligent rain water harvesting. Strong, co-ordinated and consistent guidance and policies for adoption in the short term are needed whilst longer term, evidence-based solutions to increase resilience to all the pressures are developed.	We will explore short and long term approaches to water neutrality in cycle 2 of DWMP and more particulalry as part of the WRMP.	737
9/10/2021	ODA meeting	Arun & Western Streams	Arun & Western Streams	Arun DC, based on SW advice, does not allow new development such as at Ryefield, Woodgate & Barnham Road to drain surface waters into the foul system. However, the council needs a formal response from SW regarding this advice.	This has been passed to our future growth team which will be in contact to discuss this further.	738
9/10/2021	ODA meeting	Arun & Western Streams	Arun & Western Streams	A surface water study has been undertaken. The strategic solutions looking at where nature based solutions could be utilised to tackle the issues should be considered. Early discussions with developers are needed.	Our preferred approach is nature based solutions wherever possible. We would like to be involved in any meetings that discuss these types of potential solutions.	739
9/10/2021	ODA meeting	Arun & Western Streams	Arun & Western Streams	Some flooding clusters have been investigated as part of the DAP programme. Increasing the size of the storage tanks is not a viable option for the catchment. Private laterals are an ongoing issue and ownership needs to be established.	In order to better manage flooding in the catchment we are looking at using surface water separation where appropriate as well as storage options. We are looking at implementing a programme of works to better manage infiltration into our network and this will consider how private laterals can be managed.	740
9/10/2021	ODA meeting	Arun & Western Streams	Rush Cottage, Westergate	Properties that are fitted with an AFD (Anti Flood Device) will not be removed from the DG5 register. It was pointed out the Rush Cottage at Westergate has ADFs but it is not on the register even though it still has issues. This needs to be rectified.	We will check whether DG5 register is accurate and up to date.	741
9/10/2021	ODA meeting	Arun & Western Streams	Forest Farm manhole	The manhole at Forest Farm has been responsible for sewage and associated debris swamping nearby properties. A solution could be to seal the manhole.	We will investigate Forest Farm manhole.	742

Date	Source	River Basin	Specific location	Topic	Response	Ref:
19/10/2021	ODA meeting	Arun & Western Streams	Lidsey WTW, Ryfield and Westergate	The overflow at the treatment works is noted as spilling and the reasons need to be investigated. The overflow at Ryefield is not classed as a high spiller but it still overflows. The sewers at Westergate are overloaded causing overflows to spill when it is wet.	We will investigate WTW overflow and classification of Ryefield overflow. We will also investigate capacity of Westergate sewers and potential for diverting flow.	743
19/10/2021	ODA meeting	Arun & Western Streams	Lidsey	There needs to be a survey of the impermeable areas to ascertain what is coming into system so that effective solutions can be developed. For example, if roads and roofs are connected into the sewers then notices can be served on the properties.	We will look to carry out a survey of impermeable areas in cycle 2 of DWMP.	744
19/10/2021	ODA meeting	Arun & Western Streams	A29 realignment	The A29 may potentially be realigned as part of growth proposals but it is not currently clear if the land is needed for other options or can be used for SuDS.	We need to confirm whether growth scheme is going ahead and, if so, the potential for SuDS can be explored in cycle 2 of the DWMP.	745
19/10/2021	ODA meeting	Arun & Western Streams	Lidsey	There are some known concerns of groundwater infiltration in the catchment that have been recorded. Some of the sewers have previously been sealed but how effective this has been against infiltration needs checking.	We will carry out a survey of sealed sewers in cycle 2 of the DWMP.	746
19/10/2021	ODA meeting	Arun & Western Streams	Yapton and Angmering	The system is subject to groundwater flooding although Yapton and Angmering are listed as not susceptible. The BRAVA assessment needs to be cross-checked for accuracy.	Yapton and Angmering were not one of the priority locations in this ccyle of the DWMP. We will include these and investigate the issues in cvcle 2.	747
19/10/2021	ODA meeting	Arun & Western Streams	Solent and Dorest Coast SPA	The need to consider nutrient neutrality is relatively new and so SW doesn't yet have any information on the cumulative impacts of all the wastewater systems discharging to this coast and how they interact with each other. This will need to be considered in cycle two of the DWMP	Cumulative impacts have not been considered in cycle 1 through lack of data and resources. Our intention is to progress this in cycle 2.	748
19/10/2021	ODA meeting	Arun & Western Streams	Lidsey blockage hot spots	Blockages are not a major cause of flooding problems but a targeted customer awareness should be conducted at hotspots.	We have identified investment in customer eduction as a key issue for DWMP implementation. We will initially target blockage hotspots and this could have a beneficial effect on preventing and / or minimising flooding.	749
19/10/2021	ODA meeting	Arun & Western Streams	Lidsey	All groundwater flooding is linked to the topography and, ultimately, all the issues in the catchment are connected to the high groundwater levels which cause overfilling of the systems and infiltration.	We agree and this needs to be taken this into consideration as we progress the DWMP.	750
19/10/2021	ODA meeting	Arun & Western Streams	Regional	Sewers in new developments should be future proofed, particularly the pipe joints to prevent infiltration. New development is supposed to have an effective lifetime of around 100 years so the sewer system needs to be made to last as long as the development does.	The Civil Engineering Specification for the Water Industry (CESWI) guidelines that we follow and use to provide advice to developers currently states that the "hydraulic design horizon for all pipes / sewers shall be 60 years; for outfalls, tunnels, 'strategic pipes / sewers', water pipes over 600mm and wastewater pipes / over 900mm, the design horizon shall be 100 years."	751

Date	Source	River Basin	Specific location	Topic	Response	Ref:
19/10/2021	ODA meeting	Arun & Western Streams	The Elmer Hard	The Elmer Hard has been identified as an area with a multitude of linked issues but where many potential solutions may not be appropriate. The hydraulic pumping station gets overwhelmed when it rains and the tide comes in. The issues will increase with climate change when even short term solutions will no longer be viable. There is the potential to pump surface and sea water back over the sea defences, but the area is probably too low to achieve this. SuDS and soakaways may not be appropriate in the area due to the high level of the water table but set aside areas to plant water hungry trees could be considered as part of the DWMP. Arun DC is looking to adopt a 10 year tree planting strategy. However, trees may only have a minimal effect on reducing the vast quantities of water and trees and pipes don't go together. Other service providers may not be supportive of a proposal but it is worth bringing it into the mix of potential solutions.	We are considering how to support any and all types of SuDS solutions as we implement the DWMP. We would be be open to discussions about these sorts of schemes.	752
19/10/2021	ODA meeting	Arun & Western Streams	The Elmer Hard and Lidsey	There needs to be a combination of large, small, hard and soft solutions for the Hard and for Lidsey. The catchment has already received substantial investment and more work will be costly.	We will take this into consideration as we progress the DWMP.	753
19/10/2021	ODA meeting	Arun & Western Streams	Littlehampton & Bognor Regis	Issues regarding bathing waters are mainly attributed to misconnections. The SW misconnections team will continue with the targeting programme. Bathing waters at Littlehampton and Bognor Regis are not listed as a priority. However, investigations identified a number of issues and SW had ring-fenced funding to address these but hasn't yet implemented any.	We will investigate why this has not yet been implemented.	754
30/10/2021	Correspondence	Arun & Western Streams	Pagham	Currently there are no nutrient neutrality conditions for Pagham. NE is completing an initial desktop assessment of the designated sites at Pagham including the MCZ by the Autumn with the field work undertaken next year and a full condition assessment by the end of 2022 / early 2023.	SW has undertaken the BRAVA to take account of water quality concerns and has included the designated sites. This may result in the requirement for a nitrate permit and an upgrade to the treatment works.	775
30/10/2021	Correspondence	Arun & Western Streams	Bosham	Bosham has not been identified for high spilling overflows but the STW spill summary for 2020 records that it had 82 spills totalling 1140.33 hrs indicating that it can be a high spilling site. It is important that this is taken into consideration in the DWMP due to the sensitivity of the receiving waters.	The national approach set out by Water UK is to use the 2017-2019 data, so the increase is 2020 is not included for now.	776
30/10/2021	Correspondence	Arun & Western Streams	Pagham and Loxwood	We would question whether Pagham and Loxwood should be in the Green category as there are capacity issues at both? The level of growth shown in the table particularly for Pagham looks very low and it's not clear if our latest thinking on development distribution has been taken into account together with the schemes in Arun.	Pagham was taken through to the ODA. We originally intended to take Loxwood through as well but had to postpone it due to time and resources. We will progress Loxwood as soon as possible.	777

Date	Source	River Basin	Specific location	Topic	Response	Ref:
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	Storm overflows and effluent quality are extremely critical in this catchment as many are located in, or discharge to, highly sensitive water-dependent designated areas. Sites must not fail meeting the HabsReg, SSSI or other designated site requirements through breaching permit levels or through frequent CSO spills due to increased growth and intense rainfall affecting the networks.	We hope and expect the DWMP to address all these issues as the plans come to fruition. In the interim, we will comply with the permits set by the EA.	1
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	Work collaboratively to agree long term outcomes that all want to see and use the planning objectives to measure progress in achievement of those outcomes.	Our DWMP is promoting greater collaboration and partnerships, as well as long term planning to secure wider environmental outcomes.	2
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	Develop a set of overarching principles and strategic objectives to guide the DWMP process that all could sign up to.	Our level 1, regional DWMP sets out a strategic approach and the principles that we need to apply as we deliver drainage and wastewater investment / services.	3
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	DWMPs are not statutory but should conduct an HRA, SEA and a WFD assessment in the first round if possible.	We are undertaking an SEA of our DWMP that will incorporate Habs Regs and WFD assessments. We have published a draft SEA report with our draft DWMP.	4
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	DWMPs must align with and underpin statutory plans, including Defra's 25-year Environment Plan.	This is our intention.	5
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	Much of the effluent produced is pumped out to sea. If somewhere else could be found to store it, it could potentially contribute to solutions on the scarcity of water resources for the WRMP.	We are working with our colleagues developing the WRMP to look into the potential for greater water and effluent re-use.	6
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Hailsham (WTWs)	Nitrate need to be addressed but so does phosphate which is a particular issue around Hailsham.	GES and NN objectives have been incorporated into the DWMP	7
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	One single document cannot cover all the issues from flooding and pollution, growth and development to land management schemes, environmental, social and economic impacts and benefits. A mechanism to bring all these together should be developed.	We agree but hope and intend the DWMP will provide the right mechanism to bring together these issues.	8
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	The interrelationship between development, drainage and surface waters and the impact of these on the sewers, road and rail	We have highlighted in our DWMP the need to look at managing rainwater at source including runoff from roads, roofs and new	9
02/09/2020	Workshop 1	Cuckmere & Pevensey Levels	Regional	infrastructure must be considered in the round. The potential impact of coastal erosion on SWS's coastal assets and the disruption to services could be severe. The size and scale of the problem needs to be anticipated and assessed for early intervention in areas of managed retreat. Data could be gathered from the Shoreline Management Plans and Coastal Strategies.	development. Understanding the impact of coastal erosion on our assets has been deferred to the next round of DWMPs. This will allow us to work with the Environment Agency and local councils to obtain data on predicted rates of coastal erosion and develop a robust methodology for an assessment of current and future risks.	10
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Eastbourne, Bexhill and Hastings	These catchments have significant lengths of combined sewers so the feasibility of separationg should be investigated. East Sussex have a budget to invest in this so there is an opportunity for partnership schemes.	We welcome any opportunity to work in partnership with East Sussex Council and will explore the potential for any partnership schemes	203
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Regional	Investigate whether rainwater harvesting systems would be effective in reducing surface water inputs to combined sewer systems.	We will consider this when developing the ODA. Even small reductions to the volume of surface water entering the sewers are a step in the right direction.	204
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Hailsham South	NE has concerns about drainage, pollution and the storming impacts from CSOs affecting the Pevensey Levels Habitat and SSSI designated site. This could also impact bathing and shellfish waters.	We will work with NE to understand their concerns and take this into consideration when developing the ODA	205

Date	Source	River Basin	Specific location	Topic	Response	Ref:
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Hailsham South	Beachy Head MCZ is downstream of Hailsham. The conservation features should be checked by NE taking into account the reasons for poor status.	We will take this into account as we progress the design phase and during the next cycle of the DWMP.	206
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Hailsham South	Surface water needs to be controlled and potential strategic locations should be agreed amongst partners. All redevelopment should seek opportunities to remove flows from the sewer network. ESCC has a report on the strategic location of SuDS relating to the Pevensey Levels.	We agree that potential strategic locations should be agreed amongst partners. We will liaise with ESCC regarding the outpout of the report	207
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Hailsham South	The impact of wastewater treatment needs to be mitigated because the river provides an environmental buffer between the discharge point and the protected site downstream.	We have included options addressing this in the ODA (ref HAIS.PW02.2 and HAIS.PW02.3)	208
	Workshop 2	Cuckmere & Pevensey Levels	Eastbourne, Bexhill and Hastings	Blockages are a big factor contributing to flooding and pollutions so targeted customer behaviour campaigns could help.	We have identified investment needs for targeted customer eduction in blockage hotspot areas.	209
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Eastbourne, Bexhill and Hastings	Retrofitting SuDS to remove surface water may be challenging in the urban areas.	Yes, retrofitting systems will be challenging and a combination of solutions may be required in built up areas.	210
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Eastbourne, Bexhill and Hastings	The impact of spills and wastewater treatment on nutrient levels needs to be taken into account. Treatment improvements might be required dependent on ongoing Environment Agency WFD work and future Natural England habitat condition assessments.	We will work with NE and the EA in terms of understanding the impact of spills on the condition of sites and the required changes to our permits.	211
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Hailsham South	Good Ecological Status (GES) is a Band 0 risk whilst pollution is a Band 2 but these are linked. GES relates only to the waterbody the effluent is discharged to rather than the entire catchment. We should consider the downstream impact as well as on the immediate waterbody.	We have identified that pollution caused by operational issues needs addressing and this should have a positive impact on the catchment and GES status.	212
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Hailsham South	Internal sewer flooding must be mitigated.	Preventing internal sewer flooding is a key objective for the DWMP and ways to mitigate this in the short terms will be investigated as part of the process.	213
13/05/2021	Workshop 2	Cuckmere & Pevensey Levels	Hailsham South	Studies, improved monitoring and evidence are needed to: a) understand the actual impact of discharges and storming on protected sites which will help prioritise the assets to target: b) opportunities for SUDS and c) understand the cumulative impacts of several catchments upstream of designated sites.	a) and b) are being assessed in the first cycle of the DWMP. We do not have enough data at the current time to consider c) so this will be progressed in cycle 2.	214
17/08/2021	Correspondence	Cuckmere & Pevensey Levels	Eastbourne SPZ	The sewers in Rattle Road and in the Rise Park area sub-catchment are subject to infiltration and need relining or replacing. Sewers within SPZ will require assessing to determine where relining, replacing or reinforcing is needed to reduce the risk of exfiltration.	We have identified that sewer integrity surveys are needed in the C&PL RBC and will look to extend this to the Rattle Road and Rise Park are sub-catchment.	426
24/08/2021	ODA meeting	Cuckmere & Pevensey Levels	Gilbert Road Recreation Ground	There could be opportunities to use the Gilbert Road recreation ground for flood storage.	We wil look into this as we develop the DWMP.	427
24/08/2021	ODA meeting	Cuckmere & Pevensey Levels	Eastbourne	The sewer network currently has capacity to take more drainage but approximately 44% of the flow in the sewers is from roof runoff and more than 50% is from roads. Tackling issues at source through SuDS is the only way to address flooding sustainably. Using measures such as water buts could reduce peak flood flows but will not resolve the problems.	We have identified a number of flood storage schemes for the catchment and will always be looking for potential for sustainable storage solutions rather than the traditional tanks. We hope to work with the council to identify opportunities.	428

Date	Source	River Basin	Specific location	Topic	Response	Ref:
24/08/2021	ODA meeting	Cuckmere & Pevensey Levels	Eastbourne SPZ	Any proposed SuDS schemes would need to ensure they did not impact the SPZ for water extraction. Groundwater levels are high in the western area so SuDS may not work there and sewers within SPZ will require assessing to determine where relining, replacing or reinforcing is needed to reduce the risk of exfiltration.	We would not allow SuDS or other schemes to impact the SPZ.	429
24/08/2021	ODA meeting	Cuckmere & Pevensey Levels	Rattle Road	New development is planned around Rattle Road. Incentives could be offered to property owners to replace paved over front gardens with porous driveways, perhaps going as far as looking for storage tanks beneath these.	We would like to work with the council and other relevant parties to investigate the potential of these types of options as we move forwards with the DWMP.	430
24/08/2021	ODA meeting	Cuckmere & Pevensey Levels	Eastbourne	Blockages are responsible for around 63% of the internal flooding issues but local people will not be aware of the risks. The council has a community outreach programme and could possible run a targeted campaign and link this to one on unflushables.	We have included an option addressing this in the ODA (ref EALP.SC03.1)	431
24/08/2021	ODA meeting	Cuckmere & Pevensey Levels	Eastbourne WTWs	Outfalls are affected by high river levels and there is seawater infiltration into the underground treatment works.	SW models have taken tide levels into account and the area around Firle Road is subject to tide locking although there have been investments to address this.	432
24/08/2021	ODA meeting	Cuckmere & Pevensey Levels	Firle Road, Eastbourne	Flooding is the main issue in the catchment and surface water needs improved management. The outfalls are affected by high river levels and there is seawater infiltration into the underground treatment works.	SW models have taken tide levels into account and the area around Firle Road is subject to tide locking. There has already been investments to address this.	433
24/08/2021	ODA meeting	Cuckmere & Pevensey Levels	Regional	Could consider incentives to property owners to replace paved over front gardens with porous driveways, perhaps going as far as looking for storage tanks beneath these. Potentially target driveway contractors to incentivise SuDS and work with the local council to make porous surfaces a condition for planning consents.	We will work with the council to develop this and other similar schemes.	434
24/08/2021	ODA meeting	Cuckmere & Pevensey Levels	Bourne Stream, Southbourne, West Langley, Shinewater and Hydneye	Surface water could be directed to the Bourne Stream where there is the potential storage. However, the Southbourne, West Langley, Shinewater and Hydneye lakes used to be used for flood storage mitigation and are now designated nature reserves. They have no capacity to accommodate further surface water.	We will investigate this further as we progress the DWMP.	435
07/09/2021	ODA meeting	Cuckmere & Pevensey Levels	Hailsham North	There are opportunities to create rain gardens higher up in catchment, for example, around Battle Road, possibly using woodlands, and very large spaces further upstream which seem to convey water effectively. Future surface water management could consider the development of swales.	We are actively looking for opportunities for SuDS and will work with partners who can advise us of suitable locations.	541
08/09/2021	ODA meeting	Cuckmere & Pevensey Levels	Lower Willingdon / Upper Hellingly	Growth is expected in both Lower Willingdon and Upper Hellingly areas, with about 5000 homes planned within the combined Hailsham catchments over next 15 years. There is a need for a longer term drainage plan to manage this, and SuDS should be used and so as not to exacerbate existing flooding in these areas. Water efficiency measures need to be promoted to new homeowners in partnership with the local potable water supplier.	Yes - we agree and are moving towards integrated catchment management drawing in all the relevant issues as the DWMP and WRMP evolve.	542

Register	of Stakehol	der Comments	for the Cuckmen	re and Pevensey Levels River Basin Catchment		
Date	Source	River Basin	Specific location	Topic	Response	Ref:
08/09/2021	ODA meeting	Cuckmere & Pevensey Levels		The Eastbourne Innovation Programme to the south is helping to provide headroom in the Willingdon Catchment, which is immediately to adjacent to Hailsham South.	Thank you for raising this. Its good to know.	543
08/09/2021	ODA meeting	Cuckmere & Pevensey Levels	Willngdon and Polegate	A SuDS project around the periphery of Pevensey Levels is investigating techniques for new developments. Polegate and Willingdon are both included in this project.	Again, this is good to be aware of.	544
08/09/2021	ODA meeting	Cuckmere & Pevensev Levels	Hailsham North	SW modelling suggests high infiltration for Hailsham North	We will take infiltration into account as we progress the DWMP.	545
08/09/2021	ODA meeting	Cuckmere & Pevensey Levels	Battle Road, Station Road & the A22	There are flooding issues around the Battle Road area, Station Road and the A22.	We have identified a number of options to reduce flooding in the Hailsham North system and will progress these through the DWMP.	546
04/10/2021	ODA meeting	Cuckmere & Pevensey Levels	Bexhill and Hastings	The EA is in the process of developing a NFM scheme potentially with the golf course.	Great! Thank you for letting us know and please think about how we could be involved or help.	683

Date	Source	River Basin	Specific location	Topic	Response	Ref:
07/09/2020	Workshop 1	East Hampshire	Regional	An objective on SuDS and policies on adoption, or creation, of those designed to the CIRIA guideline could help overcome resistance at new builds. It would underpin achieving environmental net gain through the DWMP and improve resilience of the water environment to increasingly intense storm events and droughts.	We are working closely with our future growth team to develop these types of policies to guide future development.	11
07/09/2020	Workshop 1	East Hampshire	Regional	Broader consideration of the risks and actions required could show that natural solutions such as wetland and habitat creation at the end of the sewer outfalls provide solutions.	We will look to develop these sorts of schemes as part of the DWMP.	12
07/09/2020	Workshop 1	East Hampshire	Regional	Developers are looking at pricey measures such as buying up agricultural land in perpetuity to offset nitrate. It may be more cost effective for them to fund nitrate removal plants.	Thank you for the information. We will look into this to see if there are other approaches we can collectively take.	13
07/09/2020	Workshop 1	East Hampshire	Regional	Lots of organisations are actively involved in the land drainage and water management space including statutory bodies, catchment partnerships, farmers and interest groups. Collaborative working has the potential to provide a positive approach to planning and developing shared solutions.	We agree and welcome any opportunity to work in partnership with relevant organisations	14
07/09/2020	Workshop 1	East Hampshire	Regional	The pollution risk objectives needs to cover the nitrate issues, and other sources such as agricultural and leachates.	We agree and we have also included objectives on groundwater protection, nutrients and GES in the DWMP.	15
07/09/2020	Workshop 1	East Hampshire	Regional	Wetland creation at sewer outfalls, rather than discharging direct to water bodies, could be used to improve water quality.	We will look to develop these sorts of schemes as part of the DWMP.	16
07/09/2020	Workshop 1	East Hampshire	Regional	Where SuDS are not possible, thought must be given to separating surface water drainage from the foul sewers.	We want to separate surface water from foul drainage wherever possible. We hope to work in partnerships to identy locations where this is possible.	17
07/09/2020	Workshop 1	East Hampshire	Regional	Growth and the much needed development planned within the catchment means that an objective is urgently needed to reduce nitrate and achieve nutrient neutrality.	GES and NN objectives are now incorporated into the DWMP	18
07/09/2020	Workshop 1	East Hampshire	Regional	Modelling could be even more future proofed by modelling a 1-in-100 or even 1-in-200 year storm event.	We incorporated this by developing a 'bespoke' company objective and methodology for 'Annualised Flood Risk' - see BRAVA outputs and subsequent consideration in the DWMP.	19
07/09/2020	Workshop 1	East Hampshire	Regional	None of the Water UK metrics appear to cover eutrophication issues.	GES and NN objectives have been incorporated into the DWMP	20
07/09/2020	Workshop 1	East Hampshire	Regional	Planned growth in the region needs to ensure nitrate neutrality to avoid further deterioration of the designated waters and other waterbodies.	GES and NN objectives have been incorporated into the DWMP	21
07/09/2020	Workshop 1	East Hampshire	Solent area	Shellfish waters around the coast (Solent) have protected status but are failing required water quality standards. Nitrate and phosphate levels urgently need to be reduced	GES and NN objectives have been incorporated into the DWMP and tnhis should have a beneficial impact on Shellfish waters.	22
07/09/2020	Workshop 1	East Hampshire	Regional	The longer term strategy must be to develop partnerships and creative solutions that address wider issues such as misconnections, leachate, agricultural land and road drainage.	We agree and will be actively looking to develop partnerships to create shared, multi-sector benefits.	23
07/09/2020	Workshop 1	East Hampshire	Regional	The permits set by the EA may need to become tighter to prevent deterioration of waterbodies.	We are expecting them to be more stringent and will comply with the permits set.	24
07/09/2020	Workshop 1	East Hampshire	Regional	Thinking should be turning to effluent storage and greywater recycling for use as a supplement to supply when needed, ensuring that water is not diverted from meeting the needs of the environment. This will	Yes, we are working with our WRMP team to explore ways to make this	; 25

Date	Source	River Basin	Specific location	Topic	Response	Ref:
27/04/2021	Workshop 2	East Hampshire	East Hampshire Groundwaters	A lot of the catchments have groundwater source protection zones associated with groundwater abstractions. There is a groundwater pollution risk from surface water and foul water in these catchments. Should the assessment be refined or checked by looking at catchment maps with the overlying SPZ's to see if it is fit for purpose.	The assessment was carried out by overlaying our sewer network map with SPZ and SGZ data from EA	140
28/04/2021	Workshop 2	East Hampshire	Regional	We would like to understand more about PO1 Internal Sewer Flood Risk - being 'customer driven'. Is this about advertising to the public of items that should not be disposed in sewers - Wet Wipes, Fats, Oils, Grease?	Most of our internal floods are a result of blockages caused by FOG and unflushables in the sewer network therefore 'customer driven'	141
28/04/2021	Workshop 2	East Hampshire	Bedhampton	Why does the BRAVA results show PO12 Groundwater Pollution marked as an Operational issue. Does this refer to the SPZ in Bedhampton?	Groundwater pollution is marked as operational because the risk is linked to condition of sewer network	142
28/04/2021	Workshop 2	East Hampshire	Regional	PO8 Dry Weather Flow Compliance seems to be a matter governed solely by Southern Water. We would like to understand more about where we can offer input here - perhaps through local planning policy?	We encourage a collaborative approach to developing the DWMP and we welcome any contribution you can provide especially in Identifing opportunites for separation of surface and rainwater is a key priority for the DWMP.	143
28/04/2021	Workshop 2	East Hampshire	Budds Farm	Surface water management is a very significant issue in Portsmouth and affects all the BRAVA outputs. Most 'spills' into the harbours are caused by heavy rain events inundating wastewater assets. Portsmouth has large areas of surface water being fed into combined sewers there is plenty of opportunity to remove surface water out of the foul water catchment, which in turn lowers the pressure on the foul water assets and Budds Farm WTW, as well as reducing the number of spill events and lowering flood risk. This would build upon the significant surface water separation investment in the city during AMP5, of which Portsmouth City Council was wholly supportive.	We will follow this up with you in the near future. We want to capitalise on any opportunities to separate flows.	144
28/04/2021	Workshop 2	East Hampshire	Budds Farm and Peel Common	Effluent from Budds Farm (existing and new development) is having a detrimental impact on European sites. The proportion of the impact that can be attributed to this or other land uses (i.e. agriculture) is disputed. There is a duty under HabsRegs to demonstrate that there is no significant effect on SPAs, irrespective of the proportion of impact from wastewater treatment. We would like to understand why these are classified as unknown as they all seem clearly spill related. For this reason, Budds Farm needs to be addressed as 'CHANGE'. These comments also apply to Peel Common catchment, as it outfalls into Portsmouth Harbour SPA.	As part of the DWMP we are considering both the risk to Nutrient Neutrality and Good Ecological Status. Our methodologies can be found on our website. We are proposing to undertake a number of studies and investigations in to nutrients within this river basin. We look forward to working with you on this matter in the future. Change strategies will be considered in cycle 2 of the DWMP.	145

Date	Source	River Basin	Specific location	Topic	Response	Ref:
28/04/2021	Workshop 2	East Hampshire	Budds Farm and Portsmouth	The recurring issues at Budds Farm needs to be addressed as a 'CHANGE' strategy rather than 'IMPROVE'. a) Improvement Plans will be subject to HabsRegs, and an 'IMPROVE' strategy will be unlikely to pass the HabsRegs tests. b) Development pressure within the catchment means there will be further capacity issues due to the increased housing development pressures from central government within Portsmouth and other authorities. A more significant strategy i.e. 'CHANGE' will be needed.	Change strategies will be considered in cycle 2 of the DWMP.	146
28/04/2021	Workshop 2	East Hampshire	Wickham	Wickham should be prioritised in the first round of DWMP.	Wickham was not prioritised for progression in this first cycle of the DWMP. It will be carried forward to a future cycle.	147
19/05/2021	Correspondence	East Hampshire	East Hampshire Groundwaters	How have you assessed groundwater within the catchment? A lot of the catchments have groundwater source protection zones associated with groundwater abstractions. Therefore, for Portsmouth Water, there is a groundwater pollution risk from surface water and foul water in these catchments. It is probably worth discussing this in a bit more detail with the project team to see whether the assessment undertaken needs refining or whether it is fit for purpose. It is probably worth looking at catchment maps with the overlying SPZ's.	We agree. We will be updating the BRAVA for cycle 2 and will look at this again at that point.	249
21/05/2021	Correspondence	East Hampshire	Budds Farm	We would like to be part of discussions moving forward about Budds Farm wastewater catchment as the majority of Havant Borough drains to Budds.	We will continue to collaborate with all partners that have been working with us throughout the development of the DWMP and any relevant others as advised.	290
27/05/2021	Correspondence	East Hampshire	Budds Farm	SW's Improvement Plans will need to be subject to a HRA. It is Portsmouth's view that the 'IMPROVE' proposed investment strategy for Budds Farm would be unlikely to pass the tests set out in the Habitats Regulations. A more significant strategy i.e. 'CHANGE' will be needed.Development pressure: For instance, within the catchment, there will be further capacity issues due to the increased pressure from central government to build homes within the city of Portsmouth and other authorities within the catchment.	Thank you for your comments regarding this catchment. We have considered growth as part of this DWMP cycle and will look at it further when we progress to the next phase. We look forward to working with you on this in the future.	306
28/05/2021	Correspondence	East Hampshire	Budds Farm	We would like to understand more about the internal sewer flooding BRAVA result being moderately significant and being 'customer driven'. Is this about advertising to the public of items that should not be disposed in sewers - Wet Wipes, Fats, Oils, Grease?	Our risk assessment methodology details the inputs and data analysis process which should help to explain the output of 'moderately significant'. Most of our internal floods are a result of blockages caused by FOG and unflushables in the sewer network and therefore are 'customer driven'	
28/05/2021	Correspondence	East Hampshire	Budds Farm	Budds Farm should be prioritised within the first round of the DWMP. However, in terms of the proposed investment strategy, we feel that the reoccurring issues at this WTW needs to be addressed as 'CHANGE' rather than 'IMPROVE'.	We will consider Change strategies in cycle 2.	308

Date	Source	River Basin	Specific location	Topic	Response	Ref:
28/05/2021	Correspondence	East Hampshire	Common	The BRAVA results table states that the primary drivers are 'unknown' for NN, Shellfish and Bathing Waters. However, it is well established that effluent from waste water treatment works (via existing and new development) is having a detrimental impact on European sites, but the proportion of the impact that can be attributed to this or other land uses (i.e. agriculture) is somewhat disputed. Notwithstanding, there is a duty under the Habitat Regulations to demonstrate no significant effect on SPAs, irrespective of the proportion of impact from waste water treatment. For this reason, it needs to be addressed as 'CHANGE'. We would like to understand why these are classified as unknown as they all seem clearly spill related. These comments also apply to Peel Common catchment, as it outfalls into Portsmouth Harbour SPA.	We are considering the HRA for the catchments that have progressed to the ODA and have included a nutrient study for all designated Habitats sites in the first ccyle of the DWMP. Change strategies will be considered in cycle 2.	309
8/05/2021	Correspondence	East Hampshire	Bedhampton	PO12 Groundwater Pollution - we would like to understand more about this BRAVA result and why it is marked as an Operational issue. Does this refer to the SPZ in Bedhampton?	we have identified that the condition of our assets in the area need rehabilitation to protect groundwater and have an investment need (BUDD.PW01.6) that will address this.	310
3/05/2021	Correspondence	East Hampshire	Wickham	Wickham should also be prioritised in the first round of DWMP.	Unfortunately, we have not been able to prioritise Wickham in this first cycle of the DWMP	311
2/06/2021	Correspondence	East Hampshire		Fareham Borough Council agrees on the basis of the BRAVA results, that the Peel Common and Budds Farm STWs are placed within the highest priority category for the DWMP. The internationally protected wildlife sites within the Solent are currently being negatively impacted by a deteriorating water environment. Wastewater production from development in Fareham and the sub-region has been identified as one factor contributing to the deterioration of the water environment. It is therefore important that those STWs that have been assessed as having multiple 'very significant' scores against Southern Water's planning objectives are prioritised for improvement.	Yes - these are the highest priority catchments within the East Hampshire RBC. There are numerous options identified in the ODA as investment needs to address the issues.	324
2/06/2021	Correspondence	East Hampshire		Fareham Borough Council agrees with the suggested order of prioritisation. However, if measures could be included within all STWs to help improve the water environment especially in respect of nutrient neutrality and overall water quality, then this would be very much supported by the Council.	This is something we are looking to do wherever possible across the region.	325
2/06/2021	Correspondence	East Hampshire		The Council would be willing to help Southern Water to identify and explore options for the Peel Common wastewater catchment. However, as part of the Council's membership of the Partnership for South Hampshire, there is an opportunity to be part of a collective group that can assist within the wider wastewater catchments in the East Hampshire River Basin.	We will continue to collaborate with all partners that have been working with us throughout the development of the DWMP and any relevant others as advised.	
2/06/2021	Correspondence	East Hampshire		The Council would be willing to work with Southern Water on the DWMP for any of the wastewater catchments in East Hampshire River Basin Catchment where possible. This is to ensure that issues around the deteriorating water environment in the Solent region is addressed.	We have identified that a nutrient study is needed for the Solent and Habours to identify the sources of pollution. We want to work in partnership to progress this with all relevant organisations and groups.	327

Date	Source	River Basin	Specific location	Topic	Response	Ref:
0/08/2021	ODA meeting	East Hampshire	CSOs in Fareham and Gosport	There is a significant number (89) of storm overflows, perhaps to be expected in an historic catchment, mainly in the areas of Fareham and in Gosport. These are identified as clusters to target action as they spill into an internationally designated harbour.	We have included options addressing this in the ODA (ref PEEL.OT01.8 to PEEL.OT01.12 and PEEL.PW01.40 to PEEL.PW01.47)	395
1/08/2021	ODA meeting	East Hampshire	Fareham and Gosport		We have included options addressing this in the ODA (ref PEEL.PW01.9, PEEL.PW01.19, PEEL.PW01.33 and PEEL.PW01.10, PEEL.PW01.18, PEEL.PW01.20)	396
1/08/2021	ODA meeting	East Hampshire	Bursledon and River Hamble	If surface water is separated, it can be diverted relatively easily into rivers such as the Hamble. For example, Bursledon is right next to the River Hamble. It is also a wide geographical catchment and there should be opportunities to the North and West to store and attenuate flows further away from the populated areas.	We will work with all relevant organisations to investigate these options in more detail.	397
1/08/2021	ODA meeting	East Hampshire	Peel Common WTW	Options to refurbish existing infrastructure to cope with levels of future growth such as upgrading Peel Common should be considered. There is a redundancy in terms of capacity although it already has tertiary treatment and is close to reaching its permit capacity and limits for Nitrate removal technology. Options for treatment elsewhere must be investigated.	We have included an option in the ODA (ref PEEL.PW02.10) for increasing capacity of the WTW and will investigate options for treatment elsewhere in cycle 2 of the DWMP.	398
1/08/2021	ODA meeting	East Hampshire	Burlesdon, Brook Lane and Hedge End.	Decentralizing Peel Common should be evaluated. Bursledon	Decentralizing Peel Common has been evaluated as part of the DWMP process. We are currently proposing other options to manage growth within the catchment but we will reconsider this proposal as part of the next cycle of the DWMP.	399
1/08/2021	ODA meeting	East Hampshire	Portsea Island	Portsmouth is essentially reliant on SW networks for surface water drainage through the combined system where it is pumped to Portsea Island for treatment. Investigate if there is an opportunity for rainfall on Portsea Island to be discharged directly to rivers or the sea.	We have included an option addressing this in the ODA (ref PEEL.OT01.13)	400
1/08/2021	ODA meeting	East Hampshire	Regional	Retrofitting separate surface water drains or building better and bigger systems is a challenge in historic, urbanised areas and very expensive. It may only be possible to look at solutions such as relining and improving the sewers already there.	Retrofitting surface water systems is a challenge and we appreciate it may not always be possible in historic urban areas so we will be looking at the best mix of solutions in these areas.	401
1/08/2021	ODA meeting	East Hampshire	Regional	The carbon costs of pumping flows across a large catchment should be taken into account so the total energy demand balance needs investigating. The use of alternative energies, such as solar panels and wind turbines, should be looked into.	Carbon costs are currently not part of the DWMP but we are keen to include it as part of the next cycle of the DWMP.	402

Date	Source	River Basin	Specific location	Topic	Response	Ref:
11/08/2021	ODA meeting	East Hampshire	East Hampshire	25% of flow in system is road runoff which is high. Road runoff needs treatment but it is not appropriate to have it in the sewer system. In highly populated areas there may be other solutions such as building underground attenuation tanks and disconnect road run off. The councils need to be involved in this and perhaps can identify potential locations.	We have included an option addressing this in the ODA (ref PEEL.OT01.13)	403
11/08/2021	ODA meeting	East Hampshire	Hamble	Microplastics from tyres are an increasing issue. There is a big pipe from the M27 discharging direct into the Hamble. Solutions are needed to address this issue.	Microplastics are not within scope for the first cycle of the DWMP. However, addressing the issue is highly important we will incorporate it in cycle 2.	404
11/08/2021	ODA meeting	East Hampshire	East Hampshire	There are a lot of pumps with chains of up to 10 pumps operating in the catchment creating odour problems. Odour is a marker for accelerated degradation from H2S but is hard to detect before it leads to collapse. Odour has not been a big focus in this round of the DWMP but we should overlay of where there are odour problem and sewer collapses / pumping station issues. Smart networks may also help to identify areas at risk. Partnership working is needed to address this.	We will explore the link between odour and sewer collapses/pumping station issues further in cycle 2 of the DWMP	405
1/08/2021	ODA meeting	East Hampshire	Fareham and M27, Wellbourne	There is significant growth of new estates and an infilling of the green spaces. Approximately 80,000 new homes are needed with much of this around Fareham. Portsmouth is working with neighbouring authorities to see if they can take the needed development. There are also developments planned North of M27 at Wellbourne and a number of other sites.	Yes - our Future Growth Team is working with the relevant authorities to ensure the drainagage systems in new developments are sustainable.	406
11/08/2021	ODA meeting - Peel Common	East Hampshire	East Hampshire	There are 'failures' that can only be tackled through partnerships with councils, highways, developers as well as the regulators. Many benefits can be brought into play through such partnerships.	We agree and welcome any opportunity to work in partnership with relevant stakeholders to tackle these failures	407
1/08/2021	ODA meeting - Peel Common	East Hampshire	Peel Common	Is there data available on the increase in Mechanical and Electrical failures that differentiates between the works and pumping stations? There are around 200 pumping stations feeding into Peel Common.	We looked at the number of incidents to date to identify the failures that took place at individual sites and why these happened. The next stage is to drill down to understand these – and we may find this is already being addressed during the current funding period (AMP7). We already have a programme on power resilience and know that Peel Common has just had its power resilience upgraded which has addressed the cause of the UV plant power failure.	408
1/08/2021	ODA meeting - Peel Common	East Hampshire	Peel Common	Odour has not been a big focus in this round of the DWMP but it is surprising that sewer condition and Hydrogen Sulphide (H2S) has not been flagged as an issue. There are a lot of pumps with chains of up to 10 pumps operating with stop / start links in the system and creating odour problems. Odour is a marker for accelerated degradation from H2S.	The issue of H2S is being considered as part of the Sewer Collapse objective and will be further considered in cycle 2.	409
1/08/2021	ODA meeting - Peel Common	East Hampshire	Peel Common	25% of flow in the PEEL system is road runoff which seems very high. Road runoff needs treatment but is it appropriate to have it in the sewer system? Can new developments provide opportunities and develop alternative systems? In highly populated areas are there other solutions such as building underground attenuation tanks and disconnect road run off	New development cannot exascerbate the issues. We are exploring all other options to separate road and building run off.	410

Date	Source	River Basin	Specific location	Topic	Response	Ref:
27/08/2021	ODA meeting	East Hampshire	Horndean	Horndean Area has historic flooding with road runoff from other areas, junction 3 of the A3(M) and agricultural runoff and urban creep contributing. Surface water separation must be investigated.	We have considered surface water separation as part of the DWMP and have developed a number of proposals throughout Southern Water's catchments.	462
31/08/2021	ODA meeting	East Hampshire	Denmead	Denmead Area has high seasonal groundwater and infiltration issues, especially in Hambledon. There is flooding at Hambledon Road Wastewater Pumping Station (WPS) and an infiltration reduction plan has been developed. Surface water runnoff and sewage floods the property at the White Horse Lane / Hill crossroads. A new pipe to stop infiltration issues has been laid but there is excessive flow in the foul network in winter. Downstream Wallington Village (in the Peel Common system) has historic flooding from flows stemming from the Denmead area.	We have included an option addressing this in the ODA (ref BUDD.OT01.15)	463
31/08/2021	ODA meeting	East Hampshire	Southwick Lake	Southwick Lake is full of silt so the landowner at Southwick Estate needs to address this.	We will liaise with the LLFA to investigate this further.	464
31/08/2021	ODA meeting	East Hampshire	Budds Farm	Highways drainage needs to be separated from the foul system. Contacts for this are needed.	We have included options addressing this in the ODA (ref BUDD.OT01.7 and BUDD.SC01.5)	465
31/08/2021	ODA meeting	East Hampshire	Havant	Havant has separate surface water systems but there are issues with misconnections and blockages. There are possibilities for reed beds in the catchment to improve water quality and improve shellfish waters. This could be combined with EA schemes for flood mitigation.	We have included an option addressing this in the ODA (ref BUDD.SC01.2)	466
31/08/2021	ODA meeting	East Hampshire	Purbrook	630 new homes are being built around Purbrook.	We have included an option addressing this in the ODA (ref BUDD.SC01.3)	467
31/08/2021	ODA meeting	East Hampshire	Paulsgrove / Cosham	Rapid runoff from Portsdown Hill with a fast flow into the system causes flash flooding from Paulsgrove in the far west of catchment through to the Cosham and Drayton areas. These areas are north of the railway and motorway embankments and flows have nowhere else to go. The flow needs to be slowed and there is the potential for attenuation ponds close to the top of the hill.	We have included an option addressing this in the ODA (ref BUDD.PW01.25)	468
31/08/2021	ODA meeting	East Hampshire	Court Lane	There is scope for a surface water system separation scheme with Portsmouth City Council at Court Lane. Rain water flows down roads and ends up at DG5 locations. The flashy groundwater response means there are difficulties with SuDS schemes.	We have included an option addressing this in the ODA (ref BUDD.PW01.10)	469
31/08/2021	ODA meeting	East Hampshire	Eastney WPS	Potentially the long sea outfall at Eastney WPS could be utilised to bypass the system taking flows to Budds Farm first.	We have included an option addressing this in the ODA (ref BUDD.OT01.11)	470
31/08/2021	ODA meeting	East Hampshire	Tipner / Mile End	Potential initiative to green the coast through green roofs and SuDS.	We agree and need to look for greening options across the entire region.	471
31/08/2021	ODA meeting	East Hampshire	Tipner / Mile End	A potential scheme at the Rudmore motorway roundabout was identified to redirect surface water from SW sewer into the surface water sewer and then into Portsmouth Harbour although it would need a pumping station due to ground levels.	We will explore this opportunity as the DWMP progresses.	472
31/08/2021	ODA meeting	East Hampshire	Old Portsmouth	The foul sewers are 100-120 years old and suffer from groundwater infiltration and there are few surface water sewers. Some schemes were highlighted for Portsea Island and these were not delivered so the reasons for this need investigating.	We will check up on this to find out why they have not been implemented and when this is now planned.	473

Register	Register of Stakeholder Comments for the East Hampshire River Basin Catchment							
Date	Source	River Basin	Specific location	Topic	Response	Ref:		
31/08/2021	ODA meeting	East Hampshire	Budds Farm WTW	Storm tanks are not seen as long term solution due to the surrounding sensitive waters. Other options need to be identified.	We have identified a series of options in the investment needs tables for surface water separation and SuDS.	474		
31/08/2021	ODA meeting	East Hampshire	Budds Farm WTW	Saline intrusion is an issue in coastal areas, particularly around Cosham, plus there is the risk of sea level rise to be considered.	We have included an option addressing this in the ODA (ref BUDD.PW01.7)	475		
31/08/2021	ODA meeting	East Hampshire	Budds Farm WTW	Final effluent recycling should be piloted. It will save on the carbon	We have included an option addressing this in the ODA (ref BUDD.OT01.14)	476		

Date	Source	River Basin	Specific location	Topic	Response	Ref:
24/09/2020	Workshop 1	Isle of Wight	Isle of Wight beaches	Ensure the quality of the Island's beaches remains high as it is vital for the Island's economy.	We aim to protect and improve bathing waters by tackling issues regarding water quality and overflow performance as well as through the work of the misconnections team.	87
25/09/2020	Workshop 1	Isle of Wight	Isle of Wight	Identify where the high spilling CSOs are so that they can be checked by the Catchment Partnership	We have identified the high spilling CSOs as part of the BRAVA.	88
25/09/2020	Workshop 1	Isle of Wight	Sandown	Sandown serves 120,000 of the 140,000 people on the island. Consequently, there is a huge reliance on Sandown – this needs to be considered in terms of the longer term implications and the wider impacts on the critical infrastructure on the island.	We have taken this into account in developing the DWMP ODAs for Sandown. It is an extremely large and complex system with many challenges.	89
25/09/2020	Workshop 1	Isle of Wight	Coastal infrastructure	Some coastal pumping stations are protected by sea walls / defences and these, along with any esplanade access routes, need to be protected. Factor in the benefits of protecting these assets to help secure government funding for flood defence and coastal protection schemes where contributions are required from several partners.	Thank you for raising this. We expect to be in touch to progress these schemes as the DWMP matures.	90
25/09/2020	Workshop 1	Isle of Wight	St Austell Steps	SWS to share the extensive survey and hydraulic modelling around St Austell Steps with the loW council.	We will share this data with and encourage ongoing collaborative working with loW	91
25/09/2020	Workshop 1	Isle of Wight	Regional	The DWMP should identify where tighter permits will be required in the longer term, although water quality modelling will be required to deliver this.		92
25/09/2020	Workshop 1	Isle of Wight	Solent area	There are many WTWs that discharge to the Solent, not just those on the Island, and the cumulative impact of these on water quality, habitats and biodiversity is severe and must be addressed.	We have indentified the need for investment in a nutrient study for the Solent which will include all wastewater systems that discharge into or are hydrologically connected to the Solent. This will investigate the cumulative impact of these wastewater systems as well as nutirent inputs from other sectors.	93
25/09/2020	Workshop 1	Isle of Wight	Yaverland, Bembridge, Shanklin	There are schemes to maintain defences/embankments at Yaverland (Culver Parade), Bembridge harbour (Embankment Road) and Shanklin Esplande are planned and require further work on the costs, benefits and funding for consideration.	We will be working with the EA to develop a partnership approach.	94
25/09/2020	Workshop 1	Isle of Wight	Regional	A key objective should be to de-carbonise SWS's delivery of its services.	SWS has a long-term objective to increase renewable regeneration to 24% by 2025 but it needs to go further and become carbon neutral.	95
25/09/2020	Workshop 1	Isle of Wight	Regional	The DWMP should go wider than delivering the WFD. It should be about delivering the Government's 25 year plan for the Environment, covering flooding, pollution and biodiversity net gain so we achieve GES.	This is one of the key objectives of the DWMP as well as for Southern Water.	96
25/09/2020	Workshop 1	Isle of Wight	Regional	With the Government push for more housing, we need to look at the balance of water and the whole life costs. The DWMP presents the opportunity to develop a high level strategy or plan for water, including recycling and re-capturing water.	Yes. We hope that this first cycle of the DWMP alongside it's 'sister' WRMP are providing the building blocks to deliver this.	97
26/04/2021	Correspondence	Isle of Wight	Sandown Bay	As you may know we are planning significant investment in the Sandown bay area in terms of sea defence construction. This will be looking to reduce the risk of flooding to housing and other key infrastructure. What struck me was the importance of the SW assets in this area especially the WTWs. How do we link the DWMP to issues around SW asset resilience. You could do a lot of investment only for it to be negated by a big flood! These schemes are a number of years away but will have a funding shortfall.	Costal flooding is a currently not evaluated as part of the DWMP but is none the less a significant concern. We look forward to working with you on this matter and including it as part or the next cycle of the DWMP.	130

Date	Source	River Basin	Specific location	Topic	Response	Ref:
27/04/2021	Workshop 2	Isle of Wight	Sandown Bay	The EA is planning significant investment in the Sandown bay area in terms of sea defence construction. This will be looking to reduce the risk of flooding to housing and other key infrastructure. Given the importance of the Southern Water assets in this area especially the WwTWs, how do we link the DWMP to issues around SW asset resilience. These schemes are a number of years away but will have a funding shortfall	Costal flooding is a currently not evaluated as part of the DWMP but is none the less a significant concern. We look forward to working with you on this matter and including it as part or the next cycle of the DWMP.	131
27/04/2021	Workshop 2	Isle of Wight	Isle of Wight	The root causes of DWF (Dry Weather Flow) exceedance, for example, infiltration or seasonally high tourist numbers, needs to be understood.	This has been addressed in the PC stage of the DWMP and an investment need for DWF has been identified (SAND.PW02.2).	132
	Workshop 2	Isle of Wight	Wooton Bridge	A significant volume of sewage is pumped across the Island to Sandown and this creates odour issues connected with rising mains, for example, at Wooton Bridge. Current odour controls are therefore not effective.	Odour is not being proactively considered in the first cycle of the DWMP, but where identified during the development of the DWMP, odour problems will be recorded. Odour and H2S is likely to be considered in cycle 2 of the DWMP	133
27/04/2021	Workshop 2	Isle of Wight	Regional	FOG (fat, oils and grease) may be a factor in blockages at pumping stations.	We have identified investment needs for customer behaviour campaigns to address the issue of FOG on the Island (SAND.SC03.1 & SAND.SC03.2)	134
27/04/2021	Workshop 2	Isle of Wight	Wroxall	Wroxall isn't a coastal catchment but the quality of the discharge effluent is thought to be affecting Good Ecological Status.	Wroxall was not prioritised for progression to the ODA stage in this cycle of the DWMP. However, we have identified that investment into a Phosphate study is required (SAND.OT01.9)	135
27/04/2021	Workshop 2	Isle of Wight	Regional	Drivers may be too simplistic: there are crossovers between the identified drivers. For example, pollution is not solely an operational driver and road runoff may also add pollutants to flood water.	Agreed.	136
27/04/2021	Workshop 2	Isle of Wight	Regional	Waters impacted by storm spills need to be identified in order to identify whether mitigation is required.	This has been undertaken as part of the CSO objective.	137
27/04/2021	Workshop 2	Isle of Wight	Regional	It is clear that the quantity of surface water entering the system causes stresses and with consequent links to pollution	Addressing surface water run off to prevent it entering the sewers is a key aim of the DWMP and we want to work in partnership with relevant organisations to find suitable locations where flows can be separated and / or slowed.	138
27/04/2021	Workshop 2	Isle of Wight	Isle of Wight	All the remaining wastewater catchments on the Island also need to be discussed in the same way		139
19/05/2021	Correspondence	Isle of Wight	Sandown	As discussed at the DWMP workshop there are a number issues that I think have not been considered for the Sandown catchment, namely odour control/H2S management. The Sandown catchment is formed of chains of WPS's yet there is limited if any odour/H2S dosing.	Odour is not a part of the DWMP in the first cycle of the DWMP but will be considered in cycle 2. However, H2S is being considered in this cycle in terms of its implications in sewer collapse.	250
01/06/2021	Correspondence	Isle of Wight	Isle of Wight	On behalf of the Catchment Partnership, thanks for the information. It may help to see the 'classifications and challenges' which shows where the WFD fails are (2019 classifications). We can then overlap these with where the waste water catchments have issues - as a waste water asset may be contributing to issues in an already sensitive waterbody where the assets are located or downstream.	We are considering Nutrient Neutrality and Good Ecological Status as planning objectives in our BRAVA assessment. We are proposing to undertake nutrient studies within the catchment. We look forward to working with you on this.	321
14/09/2021	ODA meeting	Isle of Wight	Isle of Wight	Infiltration is a general issue across much the system on the loW and is exacerbated by tidal influence. An investigation is needed to identify exactly where infiltration and/or tidal ingress is taking place.	We will be investigating opportunites to reduce infiltration and tidal ingresss in cycle 2 of the DWMP.	568

Date	Source	River Basin	Specific location	Topic	Response	Ref:
14/09/2021	ODA meeting	Isle of Wight	Isle of Wight	Creep and property renovations are another issue. Tarmacking of driveways and misconnections all add to the existing problem. The county planners advise on issues, but there are not any enforcement officers so it is often ignored and there are breaches of planning consents. It was proposed to jointly fund a full-time island-wide enforcement post - to be further considered.	We will explore the joint funding as the DWMP progresses and will be in touch to explore the potential of the proposal.	569
14/09/2021	ODA meeting	Isle of Wight	Isle of Wight	The loW council is consulting on its draft Local Plan and it is really important that all the agencies work together to get the right policies and positions in place at this early stage to make sure all requirements are met.	We agree and look forward to working in collaboration in support of loW council's the draft Local Plan	570
14/09/2021	ODA meeting	Isle of Wight	Yarmouth	Pumping over a large distance is expensive, energy inefficient and puts major pressures on the system, with a high potential for discharges and spills, and a high carbon cost. Surface water separation and disconnecting road runoff is needed to address this although an investigation into whether this would increase flood risk / pollution elsewhere is required.	Identifing opportunites for separation of surface and rainwater is a key priority for the DWMP and agree that any potential schemes need investigating and modelling to ensure there are no wider and / or unforeseen impacts.	571
14/09/2021	ODA meeting	Isle of Wight	Newport	There is a particularly large and visible CSO in the harbour/River Medina. Although spills are highly diluted and are mainly surface water rather than foul, spills are very obvious and a cause of customer concerns.	Thank you for highlighting this. We have a dedicated Storm Overflow taskforce that is actively investigating CSOs on the loW to find the most sustainable solutions.	572
14/09/2021	ODA meeting	Isle of Wight	Newport, Dodnor WMPS	There are lots of blockages. The system serves the prison, so investigate an option to install an interceptor screen before it reaches the main system. This particularly affects the Dodnor WPS.	We have identified an investment need to address issues at the WPS (SAND.PW01.7). As part of this we will investigate the potential for an interceptor screen below the prison.	573
14/09/2021	ODA meeting	Isle of Wight	Newport	It is a large catchment with lots of surface water contributing to flow and the rising main is at its capacity limit. The performance of all the assets are already strained and there is significant development planned around the town, which will only exacerbate all the issues. Separation of flow and where this would be possible needs to be identified. There is a possibility of creating a natural flood management area along the river before the development is implemented.	Identifing opportunites for separation of surface and rainwater is a key priority for the DWMP and are looking for locations where this may be possible.	574
14/09/2021	ODA meeting	Isle of Wight	Newport	There is a really high risk of flooding. The EA, in its next 6 year capital plan, is looking at the potential for upstream Natural Flood Management scheme.	In principle, we would support any natural flood management scheme that help slow the flow into our sewers.	575
14/09/2021	ODA meeting	Isle of Wight	Newport	There are lots of opportunities for shared funding schemes. A working group should be established involving EA, SW, loW Council, and the catchment partnership.	We will explore the potential to work in partnership with the relevant organisations.	576
4/09/2021	ODA meeting	Isle of Wight	Cowes	The Cowes area including West Cowes is subject to landslips and this could create a really significant risk if wastewater systems are affected. An unconstrained option would be to consider a "super sewer" along the River Medina to draw off flows, but the flow will still need to be directed to somewhere.	We have put forward this suggestion and are now recommending a combination of storage and surface water separation. We are looking at the storm overflow solutions the IOW in more detail as part of the Storm Overflows Task Force.	577
14/09/2021	ODA meeting	Isle of Wight	Cowes	The EA is considering a flood barrier to protect some 30 properties to reduce the risk of tidal flooding. Further discussions are needed with all relevant parties. The possibilities of installing NRVs (Non-return Vales) at affected properties should be investigated.	, ,	578

Date	Source	River Basin	Specific location	Topic	Response	Ref:
	ODA meeting	Isle of Wight	Sandown WTWs	Tidal flooding is a risk as the Sandown works were built on the floodplain. The EA is looking to improve sea defences which will increase the protection to the works and the infrastructure. However, there is a need to develop a shared funding scheme that would provide multiple benefits.		579
14/09/2021	ODA meeting	Isle of Wight	Sandown area	The EA is developing a scheme to reduce the risk of coastal erosion, land slippage, and to protect SWS coastal assets, including reducing the risk of flooding at Sandown. It will involve removing groundwater from the chalk bedrock. A sustainable use for the water, such as for agricultural benefit, rather than pumping it out to sea, needs a plan. The scheme will cost around £30 million and will need collaborative funding to be secured. A working group needs to be set up between the EA, SW, and loW.	We will explore the potential to work in partnership with relevant organisations to develop a shared funding scheme.	580
4/09/2021	ODA meeting	Isle of Wight	Isle of Wight	The majority of the island is a combined sewer system and there are lots of smaller systems connected to the Sandown WTWs. This has process benefits, but means there are significant pressures on the system, for example, gases, bursts, and spills at a large number of the WPSs. Added to this, there is a lot of development planned across the island that needs to be managed (11.5% expected population increase). There is often no view of where the drainage and surface water will go and the risk of groundwater flooding will likely increase due to there being an already very high water table in much of the	Identifing opportunites for separation of surface and rainwater is a key priority for the DWMP and agree that any potential schemes need investigating and modelling to ensure there are no wider and / or unforeseen impacts.	581
4/09/2021	ODA meeting	Isle of Wight	Yarmouth	Repeat flooding at manhole covers and the WPS, non-compliance issues possibly caused by screens infiltrated by sand at high tide, and the pass forward rate are affected. However, significant AMP7 investment means this may now be dealt with and the system improved. This needs to be monitored and where the flow and infiltration is derived from needs to be identified.	Thank you for the information. We will monitor the situation and investigate flows and infiltration issues.	582
14/09/2021	ODA meeting	Isle of Wight	Yarmouth	Operational issues, possibly caused by infiltration, need investigation.	Operational issues and infiltration will be investiged as the DWMP is progressed.	583
4/09/2021	ODA meeting	Isle of Wight	Yarmouth	The area is sensitive in terms of salt marshes and environmental designations. There should be consideration of total Nitrate. However, it was thought that the main source is not effluent from spills but rather from surrounding land uses.	We have identified an investment need for a nutrient study (SAND.OT01.10) and this will pick up the sources of N and P whether from effluent or arising from other sectors.	584
4/09/2021	ODA meeting	Isle of Wight	Ventnor	There are lots of issues concerning the location of the system and landslips. A new asset is planned to redirect pumping through a different and more stable route.	Thank you for the update. We will take this into consideration as we progress the DWMP.	585

Date	Source	River Basin	Specific location	Topic	Response	Ref:
10/09/2020	Workshop 1	Medway	Regional	Consideration must be given to the interaction with non-direct influences on SWS networks and surface water, such as the EA flood defences. There is the potential to work with EA and LLFAs to see where work programmes can be aligned.	We welcome any opportunity to work with EA and LLFAs to align work programmes as part of the DWMP	52
10/09/2020	Workshop 1	Medway	Regional	DWMPs need to be integrated with the WRMP (Water Resource Management Plan) for example, through effluent reuse schemes.	We will look at how we can better integrate the DWMP with the WRMP going forward. The WRMP has a number of effluent recycling pilots underway.	53
10/09/2020	Workshop 1	Medway	Regional	Surface water management could be the key to minimising issues such as tide locking - a problem when a receiving watercourse or the tide is high, sewer infiltration, sewer capacity, CSO spills and pollution.	Yes, we agree wholeheartedly. We want to work in partnership with relevant organisations to identify where we can separate surface water from our foul systems and other means of slowing the flow through Nature Based Solutions.	54
10/09/2020	Workshop 1	Medway	Medway	The catchment has significant lengths of combined sewers. SWS should work in partnership with other organisations with land drainage responsibilities to develop and fund shared schemes.	We welcome any opportunity to work in partnership with relevant organisations with land drainage responsibilities to develop and fund shared schemes	55
10/09/2020	Workshop 1	Medway	Regional	The gaps in the sewer network need to be either plugged or alternative solutions, such as first time drainage schemes or well managed SuDS schemes.	We are actively considering how best to approach these issues.	56
10/09/2020	Workshop 1	Medway	Regional	Achieving nutrient neutrality is a key area for partnership working across sectors and should be an additional planning objective.	GES and NN objectives incorporated into the DWMP	57
10/09/2020	Workshop 1	Medway	Regional	Catchments should be flagged through to the BRAVA to investigate phosphate and other nutrient impacting the receiving waterbodies.	GES and NN objectives incorporated into the DWMP	58
10/09/2020	Workshop 1	Medway	Regional	Flood modelling should include more frequent 1-in-20 year events as well as the 1-in-50 in the guidance.	We incorporated this by developing a 'bespoke' company objective and methodology for 'Annualised Flood Risk' - see BRAVA outputs and subsequent consideration in the DWMP.	59
10/09/2020	Workshop 1	Medway	Medway	Medway has many small villages in rural areas that rely on septic tanks or discharge directly to the ground. Many of these discharges are close to Source Protection Zones (SPZs) or other protected areas. There is a need to investigate potential contamination concerns, impact groundwater levels, infiltration in wet weather conditions and the integrity of the sewer systems.		60
28/04/2021	Correspondence	Medway	Horsmondon	In fact, I was surprised the Horsmonden was lower than Paddock Wood, especially given the sewer flooding issues that seem to happen so regularly there. I wonder if Paddock Wood, Hormonden and Staplehurst could be considered together, they are relatively similar and next to each other.	Horsmonden has been progressed as part of the ODA.	148
29/04/2021	Workshop 2	Medway	Tunbridge Wells South	Investigation and more information is needed regarding the CSO inlet at the works to know if this is down to the capacity in the network or at the wastewater treatment works (WTWs).	We have identified a number of options at Tunbridge Wells South that will address the issues of capacity in the network and the WTWs.	149
29/04/2021	Workshop 2	Medway	Motney Hill	The sources of storm overflows need to be broken down into subcategories such as network CSO's, flooding from manholes or overflows at wastewater treatment works.	Our work on CSOs and storm overflows will be continued as part on the Storm Overflow taskforce within Southern Water. Through this further modelling and analysis of our CSOs will take place in accordance with Defra's current guidance.	150
29/04/2021	Workshop 2	Medway	Gravesend	GBC has commissioned a green/blue infrastructure study which it can share and KCC has SuDS (Sustainable Drainage System) retrofit mapping that can be shared.	We will liaise with GBC and KCC to obtain this data	151

Date	Source	River Basin	Specific location	Topic	Response	Ref:
29/04/2021	Workshop 2	Medway		The DWMP needs to consider what is the highest priority issues to determine how to rank them. The catchments with highest number of Band 2 risks is one way but there are other ways to assess this, whether it is nutrient neutrality and future growth, achieving Good Ecological Status or Potential, preventing flooding or other issues.	Wastewater systems with the highest number of Band 2 risks have been prioritised in this cycle of the DWMP. However, we have also included systems specifically requested by partner organisations.	152
29/04/2021	Workshop 2	Medway	Tunbridge Wells South	It is possible that, due to DWF (Dry Weather Flow) compliance, a change strategy will be needed for 2050 and that a 'prepare' strategy may be appropriate in the interim.	Alternative strategies will be progressed as part of cycle 2 of the DWMP.	153
29/04/2021	Workshop 2	Medway	Tunbridge Wells South	Investigate whether flows could be redirected to the Tunbridge Wells North WTWs as it has good capacity up to 2030.	Alternative strategies will be progressed as part of cycle 2 of the DWMP.	154
29/04/2021	Workshop 2	Medway	Tunbridge Wells South	Although the WTWs does not discharge to bathing / shellfish waters it may be worthwhile looking at the impact on the receiving waterbody.	The methodology for NN has looked at the impacts on all hydrologically connected water bodies.	155
29/04/2021	Workshop 2	Medway	Motney Hill	Nutrient neutrality, linked to NE's condition report assessment of the Swale, is a Band 2. Action will be needed including reducing CSO (Combined Sewer Overflow) spill frequency and / or improvements in permitted effluent discharge quality.	We have identified 20 options to address CSOs in the investment needs for Motney Hill plus a review of the WTW's DWF permit (MOTN.PW02.1) and a nutrient study (MOTN.OT01.4).	156
29/04/2021	Workshop 2	Medway	Motney Hill	Controlling groundwater levels would not be sustainable and could have a negative impact on habitats and river flows. Making the network more resilient to groundwater ingress would be a better option.	Agreed. Investment in sewer rehabilitation will form part of the investment needs plan where identified.	157
29/04/2021	Workshop 2	Medway	Motney Hill	Water recycling could be considered as a means of recharging groundwater in the future.	We will investigate the potential in cycle 2 of the DWMP	158
29/04/2021	Workshop 2	Medway	Horsmonden, Staplehurst and Paddock Wood	Horsmonden and Staplehurst should be ranked higher than Paddock Wood, given the sewer flooding issues that seem to happen so regularly there causing flooding internally and externally and CSOs, far more than in Paddock Wood. I wonder if Paddock Wood, Hormonden and Staplehurst could be considered together, they are relatively similar and next to each other?	Horsmonden, Staplehurst and Paddock Wood have been progressed to the ODA stage of the DWMP.	159
29/04/2021	Workshop 2	Medway	Gravesend	That flooding is caused by surface water and roof runoff is a concern especially when considering the potential impact of future development of the new Garden Cities.	Yes but new development must not be allowed to exacerbate the existing issues and should be seen as an opportunity for sustainable surface water drainage.	160
29/04/2021	Workshop 2	Medway	Gravesend	Regeneration of sites offers opportunities to disconnect surface water from the foul system and redirect to surface water drains. There are now policies and building regulations regarding how new developments can and cannot connect runoff to the sewer system which should help mitigate to impacts.	Yes - we completely agree and are working with councils to support their position.	161
29/04/2021	Workshop 2	Medway	Gravesend	The LPA could help in co-designing and delivering solutions through local plan policies and replacing impermeable areas such as lay bys with permeable area and drainage ponds, rain gardens wherever possible.	We want to work in partnership with coun cils and organisations that can facilitate this.	162
29/04/2021	Workshop 2	Medway	Gravesend	Could the need to reduce sewer infiltration be linked to SW's water supply leakage reduction programme.	We will investigate the potenial for this.	163
29/04/2021	Workshop 2	Medway	Gravesend	Link target FOG and Unflushables capaigns with domestic water management messaging on, for example, the use of water butts and not paving driveways.	This is a good idea and we will look into the best way to progress it.	164

Date	Source	River Basin	Specific location	Topic	Response	Ref:
29/04/2021	Workshop 2	Medway	Medway	The network could be improved through use of smart technologies providing warning of potential blockages and building more capacity.	The deployment of smart technologies will form part of the needs-led investment plans where a need is identified.	165
29/04/2021	Workshop 2	Medway	Regional	Mitigating the impact of the discharges on receiving waters should be considered as it will build environmental resilience.	Our preference is tackle the issues at source but mitigating the impacts is also important. We will look to see where there are suitable location for implementation.	166
29/04/2021	Workshop 2	Medway	Regional	Reducing the impact of flooding on people's homes must be considered but it is, at best, a short-term measure whilst the longer term source solutions are implemented.	Agreed.	167
19/05/2021	Correspondence	Medway	Medway	It's hard to know if the prioritisation is correct without understanding the data behind the assessments better and what the specific thresholds for each category are. I am not clear what the criteria for the nutrient neutrality category is. Only the downstream WTWs seem to be considered, perhaps that discharge into the tidal Medway. However the Medway doesn't currently have any nutrient neutrality requirements, though that may come when NE have completed their assessments. I welcome the proactive approach to this, but if nutrient neutrality is an issue, it will apply to the whole catchment, as it does in the Solent, so all WwTW should be considered and assessed for this.	All the wastewater systems in each of our River Basins have been assessed for nutrient neutrality risk following the methodology published on our website: https://www.southernwater.co.uk/media/4551/bravamethdology_nutrient-neutrality.pdf. Medway has not yet been flagged by NE as of concern regarding nutrients as and when it is, we will conduct a nutrient study and this will include all wastewater systems that discharge to or are hydologically linked to the Medway.	251
9/05/2021	Correspondence	Medway	Medway	There are many WTWs in Medway and many aren't in Kent. I am surprised that Horsmonden and Staplehurst are not ranked higher, we have had repeated reports of sewer performance issues in both these catchments that cause flooding internally and externally and CSOs, far more than we do for Paddock Wood. Particularly for Horsmonden, I think there are some significant issues that need to be looked at and would consider both of these to be a higher priority than Paddock Wood	Horsmonden, Staplehurst and Paddock Wood have all been progressed as part of the PDA.	252
19/05/2021	Correspondence	Medway	Stodmarsh and Canterbury	Given the impact that the Stodmarsh issue is having on development across the SE, should the options development include all infrastructure along that catchment? Areas upstream are as affected by the NE advice as the areas in Canterbury.	We have evaluated options on a catchment basis but understand there is a wider impact on the whole river basin. We are currently undertaking nutrient studies and investigations for Stodmarsh and will determine how best to implement the fidings with all relevant partner organisations.	253
02/06/2021	Correspondence	Medway	Medway	I am unclear as to how the prioritisation has been undertaken.	We have published a technical summary concerning how we undertook the catchment prioritisation. This is available at: https://www.southernwater.co.uk/media/4983/technical-summary-catchment-selection-final.pdf	328
04/06/2021	Correspondence	Medway	Tandridge	Tandridge has limited resources in this area, and no Drainage Engineer so I don't think we can provide much of an input in relation to identifying generic options. Whilst I would be interested in being kept in the loop, it may be that SCC, as LLFA for Tandridge's administrative area, is best placed to work with you.	We will continue to collaborate with all partners that have been working with us throughout the development of the DWMP and any relevant others as advised.	329
24/08/2021	ODA meeting	Medway	Tunbridge Wells North WTW	Main location for pollutions is the WTW so focus on this for the options which may need to include ferric dosing. Liaise with the Pollution Reduction Programme to see what they are planning.	We have identified a series of investment needs for the WTW that will increase its resilience and reduce the pollution risks (ref: TUWN.PW02.1; TUWN.PW02.2; TUWN.PW02.3)	436

Date	Source	River Basin	Specific location	Topic	Response	Ref:
24/08/2021	ODA meeting	Medway	Medway Road / Upper Grosvenor Road and recreation ground	The main flooding locations are Medway Road / Upper Grosvenor Road where significant sewer flooding has caused damage to car parks, including the surface of the car park. The CSO at Grosvenor Road is not monitored with EDM and exacerbates flooding in this area, particularly at the Grosvenor recreation ground. The flow in the watercourse is doubled whenever the CSO discharges. The CSO should be removed or relocated.	We have identified a number of investment needs to minimise flood risk. However, we will need to explore some of the proposals further in cycle 2 of the DWMP.	437
24/08/2021	ODA meeting	Medway	Grosvenor Park	The watercourse is mostly culverted and so will be difficult to enlarge. Suggestions to de-culvert the watercourse to create habitat and increase attenuation have been investigated but the culverts are 2 -3 m below ground level so it is not feasible to open them up. NFM has been done in Grosvenor Park and there are possible further options to slow the flow	We will take this into consideration and work with the council to explore further attenuation options while developing the DWMP.	438
24/08/2021	ODA meeting	Medway	Apple Tree Lane	Apple Tree Lane is flooded from the CSO which discharges into a surface water sewer first and then the culverted Sommerhill Stream. The discharge is permitted but has been flagged as high risk. Partnerships are needed to find solutions to the issues.	We have included an option addressing this in the ODA (ref TUWN.PW01.8)	439
24/08/2021	ODA meeting	Medway	Town Centre	Large flat roofs in the town centre may provide opportunity for attenuation and there are limited opportunities for rain gardens (roads are narrow and there are parking pressures).	We will work with the council to identify suitable places for attenuation.	440
24/08/2021	ODA meeting	Medway	Tunbridge Wells	Most internal flooding incidents between 2017 and 2020 were due to hydraulic overload in the sewer network. Sigificant areas of surface water runoff must be disconnected from the wastewater network and storm water SuDS provided instead.	We have included options addressing this in the ODA (ref TUWN.SC01.1 and TUWS.SC01.1 to TUWS.SC01.3)	441
24/08/2021	ODA meeting	Medway	Pantiles, Tunbridge Wells	The EA has picked up traces of pollutants including paracetamol and caffeine linked to sewage discharges in some springs in the Pantiles which could impact public health and, as a consequence, tourism. CCTV surveys of local sewers is required to determine if leakage is a problem.	We have included options addressing this in the ODA (ref TUWN.PW01.7 and TUWS.PW01.21)	442
24/08/2021	ODA meeting	Medway	Pantiles, Tunbridge Wells	KCC has infiltration surveys exploring opportunities for soakaways in which to discharge rainwater. This has been opposed by local conservation group. Any option that involves installing deep soakaways would need be discussed with the conservation group in the catchment.	We will take this into consideration and liaise with the conservation groups to explore any opposition to this and similar schemes.	443
24/08/2021	ODA meeting	Medway	Pantiles, River Grom, Tunbridge Wells	Kent County Council has a gauge on the River Grom. The Pantiles was built over River Grom and a new surface water network diverting runoff into the Grom via a wetland could be considered.	We will explore this option further as the DWMP is progressed.	444
24/08/2021	ODA meeting	Medway	Florence Farm Groombridge, Tunbridge Wells	Florence Farm Groombridge emergency overflow sits on the River Grom and is known to have caused a number of pollution incidents. This needs investigating. Improve resilience of the WPS against operational, mechanical and electrical failures to reduce incidents of pollution at the site.	This has been considered as part of the DWMP and an options has been identified (ref: TUWS.PW01.3)	445
24/08/2021	ODA meeting	Medway	WTW, Tunbridge Wells South	Improve resilience of the WTW at against operational, mechanical and electrical failures to reduce incidents of pollution at the site.	We have included an option in the ODA (ref TUWS.PW01.3) which addresses pollution due to rising main conditions and will explore further measures to improve resilience against operational, mechanical and electrical failures in cycle 2 of the DWMP.	446

Date	Source	River Basin	Specific location	Topic	Response	Ref:
24/08/2021	ODA meeting	Medway	Ferrars Estate Hawkesbury WPS, Tunbridge Wells	Improve resilience of the WPS against operational, mechanical and electrical failures to reduce incidents of pollution at the site.	We have included options addressing this in the ODA (ref TUWS.PW01.4)	447
24/08/2021	ODA meeting	Medway	Silverdale Road	There is surface water flooding on the side of the railway line at Silverdale Road. It's an urban impermeable area at the top of the hill and the flooding occurs immediately downstream.	Thank you for providing this information. We will take this into consideration as we progress the DWMP.	448
24/08/2021	ODA meeting	Medway	Pantiles, Tunbridge Wells	The catchment has frequent flooding problems particularly in the areas around the Pantiles mostly related to extreme storm events.	The issue and actions required to address it are being considered as part of the ODA.	449
06/09/2021	ODA meeting	Medway	Pond Hill, Crowborough	There are potential green spaces where SuDS could be located, including parks around Pond Hill. SW and WDC to identify areas where SuDS could be implemented.	We will explore the potential to work with the council to identify suitable areas for attenuation and SuDS.	525
07/09/2021	ODA meeting	Medway	Redgate Mill, Crowborough	Identify and disconnect areas of surface runoff from wastewater network and provide storm water SuDS including retrofitting separate surface water system and installing rain butts at properties.	We have included an option addressing this in the ODA (ref CRRM.SC01.1)	526
07/09/2021	ODA meeting	Medway	Redgate Mill, Crowborough	Investigate root causes of sewer collapse, including review of quality of data collection to improve forecasting of sewer deterioration.	We have included an option addressing this in the ODA (ref CRRM.OT01.2)	527
07/09/2021	ODA meeting	Medway	Redgate Mill, Crowborough	Install property flood mitigation and resistance measures such as non return valves, flood doors / gates where internal flooding is an issue.	Property flood mitigation measures were considered as part of the DWMP. In general, our preference is to tackle the risk at a source but will work with relevant partners to identify / support property level solutions where needed.	528
07/09/2021	ODA meeting	Medway	London Road & Pellings Wood	Customer Education Programme to reduce amount of FOG and unflushables discharged into the sewer network.	We have included an option addressing this in the ODA (ref CRRM.SC03.1)	529
07/09/2021	ODA meeting	Medway	London Road & Pellings Wood	Improved sewer jetting targeting areas with food outlets to reduce build- up of FOG and unflushables causing blockages.	We will review the jetting programme currently in place in Crowborough.	530
07/09/2021	ODA meeting	Medway	Redgate Mill, Crowborough	Encourage grey water reuse especially in commercial properties,	This is outside the scope of the DWMP but we are working closely with the water resources team who can encourage this.	531
09/09/2021	ODA meeting	Medway	Swale and Medway Estuary and Marshes	Reducing the amount of rainfall entering the foul / combined sewer network should be the starting point to reduce the volume of wastewater discharges to the Swale and Medway Estuary and Marshes.	One of our key aims is to manage flooding and in particular surface water entering our network. We are looking at a number of surface water separation and other flood mitigation measures within the catchment.	550
09/09/2021	ODA meeting	Medway	Medway	SuDS should be used to store storm flows and reduce spills to the environment. SW to identify opportunities for SuDS in collaboration with the LLFA - MUA.	We agree and will take this into consideration while further developing the DWMP.	551
09/09/2021	ODA meeting	Medway	Medway, Luton areas	Working with Medway Unitary Authority (MUA), SW and the LLFA have a report on a surface water flooding investigation in the Luton area. The recommendations of the report must be considered and opportunities for partnership working with MUA utilised to identify appropriate options to address the risk of surface water flooding.	We look forward to a partnership to develop and implement the findings of the report.	552
09/09/2021	ODA meeting	Medway	Swale and Medway Estuary and Marshes	NE's condition assessment for the Medway Estuary and Marshes is likely to be published after 2025. In the interim, other measures to secure nutrient neutrality must be considered in the ODA.	We have identified that a nutrient study is required for the Medway Eastuary as part of the DWMP (MOTN.OT01.4)	553

Date	Source	River Basin	Specific location	Topic	Response	Ref:
09/09/2021	ODA meeting	Medway	Swale and Medway Estuary and Marshes	Pollutants from leaking sewers will find their way through the groundwater into the designated habitats - Swale and Medway Estuary and Marshes - and also affect the quality of the groundwater resource. An investigation is needed and rehabilitation of the sewers in poor condition that lie within the groundwater capture zones and source protection zones must be prioritised.	We have included an option addressing this in the ODA (ref WEAT.PW01.7)	554
09/09/2021	ODA meeting	Medway	The Strand and Swale Estuary	Intermittent discharges at The Strand CSO may be having a longer impact on The Swale. In addition, there are adit systems in the chalk area so reducing leaking sewers within these adits could impact groundwater. There are drinking water abstraction points from the chalk so any sewage discharged into or conveyed by these adits could have an impact on drinking water quality. This needs a monitoring study.	We have included an option addressing this in the ODA (ref WEAT.OT01.3)	555
09/09/2021	ODA meeting	Medway	Motney Hill	Investigate historical ground contamination resulting from previous land uses in order to avoid proposing any SuDS or discharge to ground options that could mobilise groundwater pollutants into groundwater capture zones.	We will investigate this in cycle 2 of the DWMP.	556
09/09/2021	ODA meeting	Medway	Rochester and Chatham	Internal sewer flooding, predominantly caused by blockages in the network, is mostly clustered in Rochester and Chatham near the banks of the Medway Estuary. A targeted customer education campaign is needed to change the behaviours of flushing FOG and wipes into the network.	We are proposing to undertake a number of customer education schemes as part of the DWMP. We look forward to working with you on this.	557
09/09/2021	ODA meeting	Medway	Canadian Avenue Chatham, High Street Chatham and Luton Road / Capstone Road Luton	Use preferred options from SW's AMP6 DAP (Drainage Area Plan)	A part of the DWMP we have made use of the AMP6 DAP options where practical. You can see the options we have proposed as part of the DWMP here: https://www.southernwater.co.uk/dwmp/medway-catchment/options-development-and-appraisal-for-medway	558
09/09/2021	ODA meeting	Medway	Motney Hill	Motney Hill must be prioritised in SW's regional Target100 programme to reduce water consumption down to 100 litres per person per day or develop plans for additional headroom to accommodate current and future growth to ensure compliance with DWF.	T100 is outside the scope of the DWMP but we are working alongside the T100 team and will take this into consideration.	559
09/09/2021	ODA meeting	Medway	Motney Hill	Transferring treated effluent to another WaSC (water and sewerage company) or discharging into the ground may be considered. However, the latter would require tertiary treatment.	We are developing a policy that will prohibit future discharges to ground in order to protect groundwater.	560
20/09/2021	ODA meeting	Medway	Gravesend	The lower Thames crossing is going to the east of Gravesend and will have significant green infrastructure opportunities that could be developed in partnership to manage surface water.	We have included an option addressing this in the ODA (ref GRAV.SC01.1)	602
0/09/2021	ODA meeting	Medway	Gravesend	There are not many green spaces in the Gravesend catchment for green infrastructure, but there are unexplored opportunities which should be identified such as potentially a culverted medieval drainage ditch system to the east of the canal basin.	We have included an option addressing this in the ODA (ref GRAV.SC01.2)	603
20/09/2021	ODA meeting	Medway	Gravesend	The Thames and Medway canal tends to struggle with adequate flows so it may benefit from receiving surface water flows. This might require pumping due to the canal levels. It is also of note the canal will be affected by the Lower Thames crossing.	We will look into this in more detail as the DWMP is implemented.	604

Date	Source	River Basin	Specific location	Topic	Response	Ref:
20/09/2021	ODA meeting	Medway	Windmill Hill, Gravesend	Exfiltration may be an issue to the south of Windmill Hill in the Gravesend catchment dissolving the surrounding chalk and causing sewer movement / poor structural grade. Rather than adopting a blanket CCTV approach to assessing sewer condition, use local knowledge and pumping station data to validate the assumptions.	We will gather relevant knowledge and data in cycle 2 of DWMP in order to validate assumptions.	605
20/09/2021	ODA meeting	Medway	Seafront, Gravesend	The upper part of the catchment along the seafront is subject to infiltration from the coastal waters Conduct a study to validate infiltration along the seafront and possible alignment with tidal patterns.	We will investigate this in cycle 2 of the DWMP	606
20/09/2021	ODA meeting	Medway	Seafront, Gravesend	Redevelopment of brownfield sites along seafront may have existing contamination, which will require liaison with local authorities to determine the scale of any issues.	We will work with the LA to investigate issues relating to contamination that may arise from or impact our systems.	607
20/09/2021	ODA meeting	Medway	Windmill Hill, Gravesend	Investigate whether a flooding hotspot to the east of Windmill Hill may be on a perched water table which may explain why modelled flooding results don't match with observed flooding.	We will investigate this as part of implementing the DWMP.	608
20/09/2021	ODA meeting	Medway	Gravesend, SPZ area		We have included an option addressing this in the ODA (ref GRAV.PW01.4)	609
20/09/2021	ODA meeting	Medway	Gravesend, Cross Lane West and the WTWs	Many CSO's discharge direct to the Thames, including Cross Lane West. Increase the size of the Storm Tanks associated with CSO spills at the Treatment Works	We have included an option addressing this in the ODA (ref GRAV.PW01.18)	610
20/09/2021	ODA meeting	Medway	Windmill Hill, Wrotham Road, Norfolk Road, Gravesend	Windmill Hill & Wrotham Road are both combined sewer areas with limited opportunity for retrofitting rainwater diversion (RWD) devices to roofs due to the nature of large older buildings in multiple occupancy. The Norfolk Road area is primarily industrial and may offer greater opportunities.	Thank you for highlighting possible opportunities for implementing surface water separation solutions. We look forward to working with you on this matter.	611
20/09/2021	ODA meeting	Medway	Gravesend	Incentivise water use reduction across the region, possibly with rewards. There is the potential to link strategically to the WRSE.	Reducing water use is outside the scope of the DWMP but we are working closely with the WRMP and WRSE Teams and the T100 campaign.	612
20/09/2021	ODA meeting	Medway	Gravesend and Northfleet	Flows could be transferred from the western part of Gravesend to Northfleet to create headroom at Gravesend. However, this would be subject to sufficient capacity at Northfleet where there are plans for significant growth - 700 homes due at Thamesfleet in the next 12 months.	Thank you for your feedback on this catchment. We will take your comments forward as we progress the designs and further develop the DWMP.	613
20/09/2021	ODA meeting	Medway	Gravesend	There may need to be tighter effluent standards on estuarine discharges such as at Gravesend.	We will comply with all permits set by the EA and will work with them to understand appropriate permit standards for estuarine discharges.	614
27/09/2021	ODA meeting	Medway	Horsmonden	Horsmonden is a complex and varied system with ongoing flooding, infiltration and misconnection issues and a range of different bodies with responsibilities. These need to be brought together to develop mutual solutions.	We will explore the potential to work in partnership with the relevant organisations to develop an integrated management programme.	634

Date	Source	River Basin	Specific location	Topic	Response	Ref:
27/09/2021	ODA meeting	Medway	Rising main, Shippers Lane, Horsmonden	Significant flooding and pollution incidents have occurred with the rising main along Shippers Lane. Surface and road water management and separation needs improvement.	We agree. Identifing opportunites for separation of surface and rainwater is a key priority for the DWMP.	635
27/09/2021	ODA meeting	Medway	Horsmonden	The source apportionment shows very high roof runoff and this should be verified.	Thank you for highlighting this issue. We will look at the possibility of reviewing the model as part of the next DWMP cycle.	636
27/09/2021	ODA meeting	Medway	Horsmonden	Verify the high infiltration assumptions and identify where CCTV surveys are needed to ascertain the condition of the sewers to understand if and where investment is needed.	We have included an option addressing this in the ODA (ref HORS.PW01.1)	637
27/09/2021	ODA meeting	Medway	Horsmonden, Marden		We will consider this in cycle 2 of DWMP.	638
27/09/2021	ODA meeting	Medway	Broadford Horsmonden WPS, Horsmonden Road Brenchley WPS, Sovereigns Way Marden Old Works WPS	Address the CSOs with more than 20 spills in 2020: Broadford Horsmonden WPS (21), Horsmonden Road Brenchley WPS (27), and Sovereigns Way Marden Old Works WPS (30).	We have included options for these CSOs in the ODA (ref HORS.OT01.2, HORS.OT01.3, HORS.OT01.4)	639
27/09/2021	ODA meeting	Medway	Staplehurst	Surface water needs to be separated where possible although options within the town may be limited but opportunities for SuDS in the Southern area should be looked for.	We have included an option addressing this in the ODA (ref STAP.SC01.1)	640
27/09/2021	ODA meeting	Medway	Staplehurst	Groundwater recharge opportunities within the catchment should be investigated.	We will investigate this in cycle 2 of DWMP.	641
27/09/2021	ODA meeting	Medway	Staplehurst	Internal sewer flooding has been caused by WPS/WTW failures and blockages, so an enhanced maintenance programme and targeted FOG campaigns should be considered.	We have included options addressing this in the ODA (ref STAP.SC03.1 and STAP.SC03.2)	642
27/09/2021		Medway	Staplehurst	Infiltration and exfiltration are known issues in the catchment, so implement CCTV monitoring of the highest risk areas as a priority.	We have included an option addressing this in the ODA (STAP.OT01.3)	643
05/10/2021	ODA meeting	Medway	Alder stream in Five Oak Green, Paddock Wood	There are lots of blocked culverts under the railway line that cause flooding and many of these are not SW assets but are under private or riparian ownership. Public perceptions are that SW is responsible for flooding incidents, even though the stream and culvert are not owned by SW. Clarify who owns which assets and communicate the position with local residents.	We will work with asset owners to verify ownership of concerning assets in cycle 2 of the DWMP and communicate this with local residents.	684
05/10/2021	ODA meeting	Medway	Alder stream in Five Oak Green, Paddock Wood	The culvert gets blocked by leaves and other debris, causing blockages that lead to flooding. The area is underlain by gravels overlain by clay, so ingress into network will be an issue when gravels are saturated. This needs regular maintenance.	We have included an option addressing this in the ODA (ref PAWD.PW01.3)	685
05/10/2021	ODA meeting	Medway	Five Oak Green WPS, Paddock Wood	There is a history of rising main issues at Five Oak Green WPS, and the catchment also suffers from high infiltration. We should look at reducing high infiltration in network to reduce pressure at the WTW and storm overflows	We agree and have included an option addressing this In the ODA (ref PAWD.OT01.2)	686
05/10/2021	ODA meeting	Medway	Paddock Wood	Identify infiltration reduction possibilities specific to this catchment and focus on CCTV surveys in areas that have flooding problems, poor sewer conditions and intersect with groundwater capture zones to prevent groundwater pollution.	We have included an option addressing this in the ODA (ref PAWD.OT01.2)	687
05/10/2021	ODA meeting	Medway	Paddock Wood WTWs	The WTW is currently a high spiller that needs addressing by upsizing the WTWs.	We have included an option addressing this in the ODA (ref PAWD.PW02.1)	688

Date	Source	River Basin	Specific location	Topic	Response	Ref:
Jaic	Source	Niver Dasiii	Specific location	Торіс	Response	itei.
05/10/2021	ODA meeting	Medway	Paddock Wood	Implement DAP options to address detriment in the network as a result of growth.	We have included a number of options addressing this in the ODA (ref PAWD.PW01.4 to PAWD.PW01.10)	689
5/10/2021	ODA meeting	Medway	Paddock Wood	Work with the Council may be able to understand where there are areas for attenuation / SuDS especially for roof and pavements for newbuild areas.	We will explore areas for attenuation with the council and other relevant organisations.	690
05/10/2021	ODA meeting	Medway	Tonbridge	Growth is already a problem due to capacity constraints at WPS and will increase spills from storm overflows. There are DAP options to address detriment in the network as a result of growth which need to be implemented.	We have included a number of options addressing this in the ODA (ref TONB.PW01.7 to TONB.PW01.12 and TONB.OT01.3 to TONB.OT01.6)	691
5/10/2021	ODA meeting	Medway	Sainsbury's and Sovereign Road car parks, fields west of the high street, Tonbridge	Sainsburys car park and Sovereign Road car park are frequently flooded in rain events. Fields in the centre of Tonbridge (to the west of the High Street) becomes saturated and contribute runoff that inundates the network. Opportunities for surface water separation need to identified. Tonbrige and Malling BC may be able to advise on areas for attenuation / SuDS especially for roof and pavements for new-build areas.	We will explore options for attenuation with the council and relevant organisations.	692
05/10/2021	ODA meeting	Medway	Tonbridge SPZ, and the A21 by-pass and Endsfield Road Leigh overflow	The SPZ and the gravel layer are at risk from groundwater pollution from spills that discharge into the gravel contributing to the deterioration in the groundwater quality. These, and specifically spills from the A21 by-pass and Endsfield Road Leigh Emergency Overflow, need to be investigated	We will investigate overflow spills in mentioned locations and risk of groundwater pollution in SPZ and gravel layer.	693
5/10/2021	ODA meeting	Medway	Tonbridge SPZ	CCTV monitoring is needed to identify poor integrity sewers in low lying and gravel areas. A programme of rehabilitation is needed to prevent further sewer collapses, particularly over the SPZ.	We agree and have included an option addressing this (ref TONB.PW01.5)	694
05/10/2021	ODA meeting	Medway	Tonbridge High Street	There are problems with blockages in High Street. A targeted campaign from the FOG and unflushables team is needed.	We have included an option addressing this in the ODA (ref TONB.SC03.1)	695

Date	Source	River Basin	Specific location	Topic	Response	Ref:
11/09/2020	Workshop 1	New Forest	Regional	Blockages are a cause for concern in the catchment and are the third highest risk. Work with the Catchment Partnership to raise awareness of the issue in key hotspots through their social networks.	We will explore the potential to work in partnership with the relevant organisations	70
23/09/2020	Workshop 1	New Forest	Regional	Cross reference the internal and external flooding metric results with EA knowledge of communities at risk of flooding and the development of the second round of FRMP's.	We will do this as the DWMP evolves.	71
23/09/2020	Workshop 1	New Forest	Regional	Find the best way to share and incorporate data and information from external organisations into the DWMP	We want to use the DWMP as a way to work collaboratively with external organisations and aim to find the best way to do this as we develop the programme	72
23/09/2020	Workshop 1	New Forest	Regional	Nature conservation needs to be factored in to the development of the DWMP to meet the government's 'green recovery' requirements.	We are actively doing this as part of the DWMP and intend to use NFM solutions where feasible when developing the ODA	73
23/09/2020	Workshop 1	New Forest	Regional	Should the permit thresholds should be more sensitive when discharging into watercourses and protected sites such as the SAC?	The EA determines our permits and will will comply with these as set. We expect them to become more stringent as we all work to protect and enhance the environment.	74
23/09/2020	Workshop 1	New Forest	Solent Area	Additional objectives should be set to reduce nutrients in the Solent, increase Natural Capital, achieve WFD objectives and comply with Habitats Regulations.	We incorporated objectives for GES and NN in the DWMP. We are considering how to increase natural capital in any future scheme and expect it to become a more formal objective in cycle 2 of the DWMP.	75
23/09/2020	Workshop 1	New Forest	Regional	Misconnections do not form part of the Water UK criteria but where they are found to be a significant factor to a catchment's water quality, this can and should be included as an additional objective. SW has a misconnections team that targets hotspot areas.	Misconnections will be considered as an additional objective in cycle 2 of the DWMP.	76
23/09/2020	Workshop 1	New Forest	New Forest National Park	Work with the New Forest National Park Authority and other partners to develop a natural capital asset register.	We would like to do this and will follow up on it when resources allow us to.	77
23/09/2020	Workshop 1	New Forest	New Forest National Park	The impact of seasonal ingress to the catchment through camping holidays and day trippers should be considered, especially campsites that operate for less than 60 days as these do not need consents	We will take this into account as we go in to the next cycle of the DWMP.	78
11/05/2021	Workshop 2	New Forest	Slowhill Copse	SW to check whether there is investment planned during this AMP relating to improving shellfish waters and this is also connected with storm overflow performance.	Our investment needs identified for this river basin can be found on our website. Our work on storm overflows as part of the DWMP will be continued with the Storm Overflow taskforce.	194
12/05/2021	Workshop 2	New Forest	Slowhill Copse	NFDC are looking at ways of slowing the flow of surface water from the Forest so there may be opportunities for partnership working to link these issues up.	We welcome any apportunity to work in partnership with NFDC to tackle these issues	195
12/05/2021	Workshop 2	New Forest	Pennington	Pennington catchment has plenty of operational issues with a lack of rehabitlitation over the years.	We have identified investment needs to improve operational resilience in the Pennington system (PENN.PW01.12 & PENN.PW01.13)	196
12/05/2021	Workshop 2	New Forest	Ashurst, Brockenhurst, Lyndhurst, Sway, Beaulieau, Minstead, East Boldre	The adopted NF Local Plan (2019) allocates a limited number of housing sites and small-scale development will continue to come forward in villages like Ashurst, Brockenhurst, Lyndhurst and Sway. However, the BRAVA results shows quite large growth forecast (in percentage terms) for the wastewater catchments at Beaulieu Village, Minstead, East Boldre and Passford House, Sway. The treatment works typically serve small populations but the forecast growth does not correlate to the areas of planned development so it is unclear why such large relative growth is forecast.	As stated, the development planned is percentage based, so an increase of 10 houses in a small hamlet of 10 properties would have a large growth forecast. However, if the areas we have identified for growth do no correlate with the authority's, then we need to ensure that any capacity increases required are for the relevant treatment works. We will look into this.	

te	Source	River Basin	Specific location	Topic	Response	Ref:
(05/2021	Workshop 2	New Forest	Slowhill Copse	A potential option to mitigate the impact of nutrients on receiving waters could be to increase shellfish numbers or certain (native) plant species that are effective at reducing nitrate levels in waterbodies without detriment to other species occupying the same habitat.	An interesting proposal. It would not be within scope of the DWMP but could be considered in the future.	198
(05/2021	Workshop 2	New Forest	Pennington	The introduction of oysters beds and other seafood is likely in the future so the risk to shellfish waters may become higher and, given the ecological designations in the New Forest and the Solent coast, quality is a key driver.	This issue will be progressed in cycle 2 for the DWMP.	199
05/2021	Workshop 2	New Forest	Thorns Beach	Thorns Beach, a tiny site, has suffered from being overwhelmed for a while. A recent upstream lining job should address the infiltration but it should be checked.	Thank you for this information. We will monitor its effectiveness.	200
(05/2021	Correspondence	New Forest	Ashlett Creek	Nitrogen removal at Ashlett Creek should be accorded a higher priority. It is the third largest STW in the catchment and the forecast growth would be more like 20% by 2035 given 1500 homes will be coming forward at the former Fawley Power Station (planning approval obtained, legal agreement being finalised). It also has no TN permit and voluntary SW monitoring recorded an average TN level in the past 12m of 30 mgN/l, relatively high by Solent standards.	Thank you for your comments on this. We will take these comments into account when we progress the design options for Ashlett Creek Fawley.	218
05/2021	Correspondence	New Forest	Lyndurst / SPA / SACs	There are a number of treatment works in the New Forest that discharge into internationally protected habitats. For example, the Lyndhurst WTWs discharges into the Beaulieu River which then crosses the New Forest Ramsar site, the New Forest SAC and SPA. Bodies like the Wild New Forest Group have raised concerns about the impact of discharge from the Lyndhurst sewage treatment works on designated NF sites. Given the highly designated nature of the catchment downstream from the Lyndhurst works - allied to the storm overflow performance, risk of sewer flooding and risk of flooding from hydraulic overload highlighted in the BRAVA assessment - we would suggest the Lyndhurst wastewater treatment works is given a higher priority. Any Habitat Regulations Assessment (HRA) of the draft DWMP would highlight the issues relating to performance of the Lyndhurst treatment works on the New Forest SAC, SPA and Ramsar site integrity and the Lyndhurst works should therefore be prioritised for investment.	Lyndhurst has been progressed as part of the ODA.	219
(05/2021	Correspondence	New Forest	Ashlett Creek	I would agree and the support the feedback provided by the NFDC regarding the Ashlett Creek treatment works. The works serves the third largest catchment in terms of population in the NF and SW's voluntary monitoring undertaken over the last year indicates the level of nitrates entering the protected Solent designations from the outfall at the Ashlett Creek works is high compared to other coastal treatment works. The site therefore has significant potential for nitrate removal	Ashlett Creek has been progressed as part of the ODA.	220

19/05/2021	Correspondence	New Forest	Pennington, Beaulieu Hummicks, Brockenhurst and Boldre.	Wondering about the impacts of Pennington and Beaulieu Hummicks in terms of potential impacts on Shellfish waters and possibly Brockenhurst and Boldre too in connection to the Lymington estuary shellfish water? Is this table just showing potential to impact or evidenced impacts.	Both Pennington and Brockenhurst have been taken through to the ODA. None of these systems have been identified as impacting shellfish waters although Beaulieu Village and Ashlett Creek were. Ashlett Creek has also progressed through the ODA and we hope to able to include Beaulieu Village in future cycles of the DWMP.	263
20/05/2021	Correspondence	New Forest	Flexford Lane, East Boldre, East End, Boldre and Brockenhurst	I believe there are AMP7 phosphorus improvements funded for Flexford Lane, East Boldre, East End, Boldre and Brockenhurst which are having a known impact on WFD compliance. Are these not shown as they have funding agreed?	AMP7 schemes are not included in the DWMP as it builds upon AMP7 schemes and plans ahead from 2025 onwards	264
28/05/2021	Correspondence	New Forest	East End and Sowley Pond	The current prioritisation process underplays the importance of the New Forest freshwaters contributing to Nature Recovery. Greater join up between the DWMP process and local nature recovery schemes would be supported. Improvements to East End would assist in addressing nutrient input to Sowley Pond and Marsh SSSI. Although small compared to some sites SW is dealing with, interventions and delivery of improvements would have significant benefits if they can be delivered in a timely manner.	Yes. We acknowledge the importance of this. However, resources mean we will have to progress this in cycle 2 of the DWMP as the catchment is not one of the priority catchments this time around.	312
28/05/2021	Correspondence	New Forest	New Forest SSSI	Further investigation is needed on the likelihood of SSSI condition assessments reflecting the impacts of storm overflows. A drawback of data driven processes where the underlying data is slow to be updated or not fully reflecting the impact of key elements on overall biodiversity is that an assessment can overlook what can be significant constraints on nature recovery. SSSI condition assessment cannot cover the whole gamut of impacts on protected sites and therefore its use in WFD and now DWMP process does need careful interpretation.	consider SSSI condition.	313
28/05/2021	Correspondence	New Forest	Sowley Pond and Marsh SSSI sites	Given the urgency expressed in the now more widely accepted concepts of Climate Change Emergency and Nature Crisis, and the role of freshwaters in both, the CP thinks the current prioritisation process underplays the importance of the NF catchments in contributing to Nature Recovery. An ambitious workstream is to be delivered over the next few years, reflecting the importance attached to the freshwater and marine environment locally. Greater join up between the DWMP process and such delivery would be helpful, if not expected by stakeholders. There are potential synergies in the work that could perhaps be reflected in the prioritisation such as the Beulieu, Sowley and Hatchett sub- catchments and improvements to East End to assist in addressing nutrient input to Sowley Pond and Marsh SSSI sites. Although small compared to some sites SW is dealing with, the context means interventions and delivery of improvements would have significant benefits if they can be delivered in a timely manner.	We will take this into consideration in cycle 2 of the DWMP as this is not one of our priority catchments in this first cycle.	314

Date	Source	River Basin	Specific location	Topic	Response	Ref:
28/05/2021	Correspondence	New Forest	Ashlett Creek, Lyndhurst and Brockenhurst	The CP support comments made by NFNPA and NFDC regarding Ashlett Creek and also those WTW which local information suggests are impacting on designated nature conservation sites. It is challenging providing comments that reflect the breadth of the views within the Partnership and its stakeholders which it is aware of more urgent prioritisation of Brockenhurst and Lyndhurst would be advantageous to avoid further public censure of performance in the New Forest. Professionals involved in the partnership also support this need.	We have included Ashlett Creek in the first round of the DWMP along with Brockenhurst, Lyndhurst, Pennington and Slowhill Copse. We have identified options in the ODA for Ashlett Creek to address the issues impacting conservation sites (ASHL.OT01.3 and ASHL.OT01.4).	315
28/05/2021	Correspondence	New Forest	Brockenhurst and Lyndhurst	Brockenhurst and Lyndhurst should be prioritised to avoid further public censure of performance in the New Forest.	Brockenhurst and Lyndhurst were included in the prioritisation	316
28/05/2021	Correspondence	New Forest	Beaulieu, Minsted, East Boldre and Sway	There is uncertainty regarding planned growth for the New Forest catchments (Beaulieu Village, Minstead, East Boldre and Passford House, Sway, but also more widely). There are seasonal issues with land use for camping that can bring significant pressures onto wastewater and freshwater systems. The Catchment Partnership is undertaking work to address diffuse and point source pollution, as well as water use from such land use by working with local businesses and landowners. This might complement your delivery and be a factor in prioritisation.	None of these works were prioritised for progression to the subsequent stages of the DWMP. However, they will be taken forward when resources allow. Seasonal ingress is something our future growth team take into account when assessing capacity issues.	
01/07/2021	ODA meeting	New Forest	Ashlett Creek and Calshot	The CSO at Calshot is sealed off at the wet well – it spills directly from the manhole and WPS. The model needs investment to identify the cause of the spills.	We will take this into consideration in cycle 2 of the DWMP	338
21/07/2021	ODA meeting	New Forest	Ashlett Creek, Fawley	There is potential to separate runoff and divert it to Natural Flood Management schemes. For example, new development in the catchment, particularly in the Fawley refinery complex, provides opportunities for separation and SuDS.	We have included an option addressing this in the ODA (ref ASHL.OT01.7)	339
21/07/2021	ODA meeting	New Forest	Ashlett Creek, Springfield Avenue	There are partnership opportunities with ongoing A326 highways corridor improvements. For example, there is a planned council naturalisation project to the North West of the catchment around Springfield Avenue – the current site of New Forest recreational mitigation project.	We have included an option addressing this in the ODA (ref ASHL.SC01.1)	340
21/07/2021	ODA meeting	New Forest	Ashlett Creek	There are historical issues of Hydrogen Sulphide (H2S) in the catchment. 400m section of the pipe coming into the treatment works was destroyed (side and crowns of the pipe) by H2S. Connected odour issues are limited by a dosing programme. The integrity of the sewer needs to be checked to lessen risk of sewer collapses/pollution.	Reducing the risk of Sewer Collapse is one of the objectives of the DWMP. The issue of H2S will be further considered in cycle 2.	341
21/07/2021	ODA meeting	New Forest	Ashlett Creek WTWs	There should be a review of the nitrate permit for the treatment works and phosphate should be flagged as well.	We will work with the EA to ensure our permits are appropriate for the catchment.	342
21/07/2021	ODA meeting	New Forest	Brockenhurst, Holland Wood	Water demand needs to be reduced in the catchment by targeting campsites linked to the mains system (Holland Wood) to combat issues with high usage on bank holidays and holiday periods and the use of rain water/grey water for toilet flushing and garden watering. Collaborative working with commoners and land owners for water usage reduction. The Catchment Partnership is currently implementing a 'wild for water' initiative, which includes water efficiency messages on high water use, and rainwater harvesting for use as water to flush	We agree and think the 'wild for water' initiative should help in terms of reducing water use. Reducing water use is not in scope for the DWMP although we support our water resources colleagues and any initatives that will reduce water use and conserve it to meet the needs of people and the environment into the future.	

Date	Source	River Basin	Specific location	Topic	Response	Ref:
21/07/2021	ODA meeting	New Forest	Brockenhurst	The Phosphate consent is being reduced but this will not be effective enough to prevent detriment to the Lymington River where the works discharge. It suffers from low flows and low dilution during the summer months making it increasingly vulnerable. Added to this, significant development planned. Inland treatment works haven't traditionally had to have nutrient permits and no Nitrate permit is in place, so a review of the permit is needed.	We will comply with the new Phosphate guidelines and the Phosphate permit the EA will establish.	344
21/07/2021	ODA meeting	New Forest	Lyndhurst	The storm tanks need improvements. They need upgrading to have automated return of the water in the storm tanks to the treatment process, which will reduce spills from the treatment works.	We have included an alternative option addressing this in the ODA (LYND.OT01.4)	345
21/07/2021	ODA meeting	New Forest	Lyndhurst, Girl Guiding Centre	The catchment has a transient population, especially on bank and other holidays, and the nearby Girl Guiding centre which would provide opportunities for engagement and awareness training on blockages.	We want to work in partnership to raise awareness of these issues and will be in touch as the DWMP develops.	346
21/07/2021	ODA meeting	New Forest		The DWMP needs to be consistent with the plans for the WRMP.	We are working internally within SW to align the DWMP and WRMP programmes.	347
21/07/2021	ODA meeting	New Forest	Brockenhurst	The catchment has historical issues with blockages. The area is low lying and there is lots of grit in the system. The pumping station now has automatic return valves and a grit removal process has been incorporated into the upgrade of the works. This needs monitoring to check effectiveness.	We will monitor the performance and effectivess of the grit removal process.	348
21/07/2021	ODA meeting	New Forest	Brockenhurst	The catchment has lots of residential gardens providing ample opportunity for water butts to be used for summer storm events.	We will take this into consideration as we progress the DWMP and develop customer facing campaigns.	349
21/07/2021	ODA meeting	New Forest	Brockenhurst	There is no separate drainage system in the catchment, so any opportunity to separate the systems must be sought, utilising a model to identify suitable locations.	We will collaborate to identify suitable location/s to separate foul and surface water systems and will investigate the potential volume that could be attenuated using an updated hydraulic model.	350
21/07/2021	ODA meeting	New Forest	Brockenhurst	There is potential to use the New Forest Show ground for attenuation in winter months.	We have proposed a study on the potential use of New Forest Show ground for attenuation of excess surface runoff in winter months.	351
21/07/2021	ODA meeting	New Forest	Lyndhurst, Lime Wood Hotel	The Lime Wood Hotel is currently building a connection to join the main sewer. This will benefit the watercourse as their private works is likely to have a less strict permit / consent than the SW Lyndhurst works.	This is helpful to know and could impact positively on the receiving environment.	352
21/07/2021	ODA meeting	New Forest	Lyndhurst	A permit review is needed as, currently, no new permits are coming into effect.	We will work with the EA to ensure our permits are appropriate for the catchment.	353
21/07/2021	ODA meeting	New Forest	Pennington, Lymington area	There is a risk of saline infiltration from the sea in the Lymington part of the catchment which needs to be investigated and the low dilution in the sewers in the summer months.	We will collaborate to identify suitable locations to / for sewer relining and investigate using an updated hydraulic model to prevent saline intrusion.	354
21/07/2021	ODA meeting	New Forest	Pennington works	There is a large spiller at the works and the storm tanks have automated emptying. Investigations for where surface water runoff/storage can go in the catchment are needed.	Collaborations are needed to identify suitable location/s to separate foul and surface water systems. We will investigate potential volume that could be attenuated using updated hydraulic model.	355
21/07/2021	ODA meeting	New Forest	Pennington	There is low dilution in the sewers in the summer months. A permit review is needed.	There is the potential to increase the capacity of the Wastewater Treatment Works (WTW) and optimise or extend the site to allow for the extra 3217m3 DWF required due to growth in catchment. A permit review will be required for this.	356

Register	of Stakehold	er Comments	for the New Fo	rest River Basin Catchment		
Date	Source	River Basin	Specific location	Topic	Response	Ref:
21/09/2021	ODA meeting	New Forest	Lyndhurst WTWs	Lyndhurst could connect to another catchment with a bigger treatment works. This would reduce flow in the streams as some of the flows will be treated effluent, but it would also remove a large percentage of surface water, taking it away from sensitive watercourses. A model is needed to verify this		628

Date	Source	River Basin	Specific location	Topic	Response	Ref:
29/09/2020	Workshop 1	North Kent	Regional	Don't link objectives to compliance with permits – this is not enough. Opportunities need to be developed for SWS and the EA to work together to map out the future permit levels to protect the environment.	We want to use the DWMP to develop more robust ways of tackling issues such as non-compliance and welcome any opportunity to work together with the EA to map out future permit levels	108
30/09/2020	Workshop 1	North Kent	Regional	It is important to understand what everyone wants to achieve for the catchment and to not automatically see everything as a risk but as an opportunity to create synergies between the work of partner organisations to improve the local environment.	We agree. This is the approach we are taking with the DWMP	109
30/09/2020	Workshop 1	North Kent	Regional	Surface water needs to be managed in a different way in the future. Sustainable Drainage Systems (SuDS) could provide a solution to many of the issues highlighted by reducing pollutants such as nitrate and phosphate through filtration, slowing the flow through water attenuation and improving sewer capacity to minimise spills from CSOs.	We agree. However, the prescribed process means we have to take a risk based approach but are viewing the solutions as opportunities.	110
30/09/2020	Workshop 1	North Kent	North Kent aquifers	The aquifer is becoming polluted with bacteria from agricultural run-off, poorly maintained septic tanks or from direct discharges into the ground. A long-term sustainable solution is required, especially with the level of proposed residential development planned within the catchment.	As a business, we are looking into the best ways to tackle this issue.	111
80/09/2020	Workshop 1	North Kent	Swale Estuary	The Swale Estuary is one of the areas of the coast most at risk from eutrophication through the cumulative impacts of the discharges. Cumulative impacts must be considered.	We have indentified the need for investment in a nutrient study for the Swale which will include all wastewater systems that discharge into or are hydrologically connected to the Swale. This will investigate the cumulative impact of these wastewater systems as well as nutirent inputs from other sectors.	112
30/09/2020	Workshop 1	North Kent		A key principle should be to leave the environment in a better condition than it is today.	This is one of SW's overall principles and a key ambition for the DWMP.	113
30/09/2020	Workshop 1	North Kent	Regional	Hazardous substances such as metals, pharmaceuticals, hormones, chemicals and micro-plastics are rising up the risk register for the water environment. Reducing the presence of these in the water environment should be an objective of the DWMP.	SWS is supporting the UKWIR (Water Industry Research) programme of investigations into the sources and impacts of these types of substances. These studies will not be completed in time to be included in this round of the DWMP but the findings will be incorporated in future rounds.	
80/09/2020	Workshop 1	North Kent	Regional	It would be helpful if SWS could consider modelling the current networks to a 1-in-50 year standard as well to be able to assess the likelihood of increased levels of flooding. Developing 1-in-20 year output from the hydraulic models would also assist in assessing the impact of more frequent acute events on the systems.	We incorporated a 'bespoke' company objective and methodology into the DWMP for 'Annualised Flood Risk' - see BRAVA outputs and subsequent consideration in the DWMP.	115
30/09/2020	Workshop 1	North Kent	Regional	Specific local objectives are needed for the DWMP. Identify where there are water quality problems, what is required to reach good ecological status, and the role of each organisation in reaching it.	GES and NN objectives incorporated into the DWMP. As the DWMP develops and is implemented, we expect local objectives to be developed for local sites .	116
30/09/2020	Workshop 1	North Kent	Regional	Thames Water has an ambition to share telemetry data and to put it on- line to be publicly and transparently accessible. SW should have the same ambition.	We already share and make publicly accesible our telemetry data on bathing waters via beachbuoy. We hope to extend this to inland waters in the near future.	117
30/09/2020	Workshop 1	North Kent	Regional	The nationally-set Water UK objectives are risks rather than objectives. However, to resonate locally, the national objectives need to be aligned to local concerns. A priority should be to identify locally important long-term outcomes and understand how these can be developed for this or future rounds of the DWMP.	As the DWMP develops and local schemes planned and planned, we expect local, long term objectives to be developed for local implementation.	118

Date	Source	River Basin	Specific location	Topic	Response	Ref:
29/04/2021	Workshop 2	North Kent	Sittingbourne and Queenborough	The catchments in green appear to be the smaller in population and growth, so how ave you decided between something like Queenborough and Sittingbourne when Queenborough appears to have more needs but Sittingbourne serves the high population and with larger growth, Should groundwater impacts have a higher score?	Our assessment for groundwater pollution is based on length and condition of sewer network intersecting with SPZ and SGZ. A catchment serving a larger population may have better sewer network condition and/or a lower proportion of sewer network intersecting with SPZ/SGZ therefore carrying a lower risk of groundwater pollution than a catchment serving a smaller population with worse sewer network condition and/or higher proportion of sewer network intersecting with SPZ/SGZ	168
10/05/2021	Workshop 2	North Kent	Queenborough	The age of the network assets are an issue leading to the relatively high risk of sewer collapse. The interdependency of sewer collapse and rising main failures should be investigated.	Agreed.	169
10/05/2021	Workshop 2	North Kent	Queenborough	Further investigations are needed regarding effective ways to address nutrient neutrality.	A nutrient assessment and budget will form a key element of the needs led investment plan (QUEE.OT01.5).	170
10/05/2021	Workshop 2	North Kent	Minster	Tide locking of outfalls may be an issue in the general Minster area.	We have identified an investment need to investigate potential tide locking (QUEE.PW01.1).	171
10/05/2021	Workshop 2	North Kent	Faversham	Faversham is due to expand at a fast rate and this will exacerbate all the risks.	We have identified a range of investment needs for Faversham including to take account of growth and we hope this means the risks will reduce rather than increase.	172
10/05/2021	Workshop 2	North Kent	Faversham	In Faversham, all the sewer catchments are combined meaning there is a combination of volume plus flow rate contributing to CSO spills.	We have identified the need to address CSO spills in Faversham (FAVE.PW01.7 & FAVE.PW01.8).	173
10/05/2021	Workshop 2	North Kent	Faversham	Controlling and reduce surface water runoff would provide immediate benefits to the Faversham catchment however, this would be a huge project as it is mainly combined sewers.	Sustainable means of separating and attenuating surface water flows are a core part of the DWMP.	174
10/05/2021	Workshop 2	North Kent	Faversham	Operational and hydraulic issues must be addressed to improve the sewer network.	The Problem Characterisation has identified the causes of risks and measures will be identified in the investment needs plan.	175
10/05/2021		North Kent		Addressing treatment, electrical and mechanical faults will help with nutrient neutrality.	We have identified a number of options in the North Kent RBC to address effluent treatment and maintenance issues as well as a nutrient study for the Swale.	176
18/05/2021	Correspondence	North Kent	North Kent	If you have any First Time Sewerage schemes or misconnection campaigns in the area of Kent, SW Water would be interested in linking up.	We welcome working in partnership and will share relevant contacts	221
18/05/2021	Correspondence	North Kent	North Kent	The NK DWMP appears to capture all the key elements and a methodology for capturing priorities. It certainly seems like the more intense rainfall we see, presumably with increased housing / infrastructure is a difficult one. Hydraulics appearing to play factor in your focus, along with some operational needs presumably based on age/capability of assets. In answer to your first question yes, I am would agree with the suggested prioritisation.	Thank you for confirming.	222
18/05/2021	Correspondence	North Kent	Sittingbourne & Queensborough	The catchments in green appear to be the smaller in population and growth, so I understand whilst it would be great to do everything there is only so much money to go around. The only query I would have is how you decide between something like Queenborough and Sittingbourne, Queenborough appears to have more needs but Sittingbourne serves the high population and with larger growth and is there then any thoughts on GW impact having a higher score.	Both catchments have been progressed as part of the ODA.	223

Date	Source	River Basin	Specific location	Topic	Response	Ref:
18/05/2021	Correspondence	North Kent	North Kent	I work for South East Water, so we overlap in areas served albeit we are clean water only, so I am happy to be a contact. My role is specifically Kent and more focused towards North Kent, so I would be interested in these areas, but I have colleagues and contacts that work in other areas so any overlap areas would be of interest across Kent, Sussex and Hampshire.	We will continue to collaborate with all partners that have been working with us throughout the development of the DWMP and any relevant others as advised.	224
23/09/2021	ODA meeting	North Kent	Queenborough	There is a problem with saline ingress in the sheerness area. A CCTV survey is needed to review the asset condition is needed to identify disjoints, manhole ingression and locations of saline intrusion along the seafront.	We have included an option addressing this in the ODA (ref QUEE.PW01.3)	630
23/09/2021	ODA meeting	North Kent	Queenborough. Minster Ward Hill Road	The pumping station in Minster (Ward Hill Road) discharges to the Scrapsgate Drain which gets tide locked which, in turn, causes the CSO to discharge 3/4 times per year and are coincident with heavy rains. The manholes in this area are also low lying. A robust technical solution needs to be found and a conductivity survey should be extended beyond the PS into the gravity network to help identify where intrusion is taking place.	We have included an option addressing this in the ODA (ref QUEE.OT01.1)	631
23/09/2021	ODA meeting	North Kent	Queenborough WTWs	The Swale condition assessment is not yet done, but is due in the next year or two. This will determine what nutrient standards are appropriate. The WTW may need an upgrade but this could potentially be avoided by moving the discharge point out of the Swale and into the Thames Estuary.	·	632
23/09/2021	ODA meeting	North Kent	Queenborough WTWs	Pumping costs and increasing capacity at the works could potentially be avoided by building an additional WTW that could discharge direct to the Thames.	These types of schemes will be considered in cycle 2.	633
06/10/2021	ODA meeting	North Kent	Faversham	Faversham has lots of combined systems, around 30 pumping stations, separate culvert systems and high groundwater levels. It adds up to a complex and varied system with ongoing issues and different bodies with responsibilities. These need to be brought together to develop solutions.	We will want to work in partnership with the relevant organisations to explore the potential solutions.	696
06/10/2021	ODA meeting	North Kent	Faversham and Shepherd Neame	Groundwater is vulnerable and the Southern part of the network overlays a Source Protection Zone (SPZ). There isn't a nitrate scheme although there is a rising nitrate trend around Shepherd Neame. SE Water can provide data. There are a number of poor structural grade sewers in the area so a CCTV survey is needed to ascertain the condition of the sewers to understand if and where investment is needed.	We agree and have included an option addressing this in the ODA (ref FAVE.PW01.14)	697
06/10/2021	ODA meeting	North Kent	Faversham	Investigate if there is infiltration from the culverts and whether the sewers need relining.	We have included an option addressing this in the ODA (ref FAVE.OT01.7)	698

Date	Source	River Basin	Specific location	Topic	Response	Ref:
06/10/2021	ODA meeting	North Kent	Faversham	Surface water needs to be separated where possible. Options within the town may be limited but a lot of small interventions may make a big difference. There could be possibilities to slow flows before it enters the town through SuDS schemes. Kent Highways need to be involved to separate off road drainage and culverts should be separated from the system.	This will be explored in cycle 2 of DWMP. Council highways will be involved regarding separating road runoff from the sewer system.	699
06/10/2021	ODA meeting	North Kent	Faversham	There is a network of ditches that surface water drains to, but these are not working well and are subject to tide locking so need maintenance programme. Ownership needs to be identified.	We will identify ownership of the ditches before exploring the potential for developing a maintenance programme in cycle 2 of the DWMP.	700
06/10/2021	ODA meeting	North Kent	Sittingbourne	Sewer flooding has been caused by blockages so an enhanced customer awareness and education programme should be considered.	We have included an option addressing this in the ODA (ref SITT.SC03.1)	701
06/10/2021	ODA meeting	North Kent	Sittingbourne, Combe / Woodberry Drive and Snipeshill	There are a few frequent surface water related flooding hotspots. Kent CC is looking at schemes (possibly to separate systems) a) By the railway where surface water flows down Combe and Woodberry Drives and b) at Snipeshill	We will support KCC flood prevention schemes whever possible and work in partnership with the relevant organisations.	702
06/10/2021	ODA meeting	North Kent	Sittingbourne	DWF is at risk now and will increase to a serious risk by 2050. An existing AMP7 scheme to address this will need monitoring.	We agree and have included an option addressing this in the ODA (ref SITT.PW02.2)	703
06/10/2021	ODA meeting	North Kent	Sittingbourne bore hole	The closure of the Sittingbourne paper works means the borehole is now not being used to abstract water and this is having a big impact on groundwater levels. Alternative uses for the groundwater (such as irrigation for the fruit producers) should be investigated.	This falls outside of the scope of the DWMP but we will support any initiatives that others are investigating.	704
06/10/2021	ODA meeting	North Kent	Sittingbourne	The general topography of the system and location of Sittingbourne works means there is some flood risk and tide locking. This could be attributed to groundwater rebound but this is not conclusive and needs to be investigated.	We agree and have included an option addressing this is the ODA (ref SITT.OT01.2)	705
06/10/2021	ODA meeting	North Kent	Faversham Garden City	There is significant development planned of approximately 2000 houses for Faversham Garden City to the South East.	We will take growth plans into account as we progress the DWMP.	706
06/10/2021	ODA meeting	North Kent	Faversham	The impacts on shellfish waters is mainly down to hydraulic overload causing spills.	The DWMP is looking to reduce surface water runoff into the sewer systems which will reduce spills caused by hydraulic overload. The priority is to find the appropriate ways and locations where this can be achieved. Partnership working on this is something we are looking to develop.	707
06/10/2021	ODA meeting	North Kent	Faversham and Abbeyfield	Some significant pollution incidents have coincided with internal flooding incidents and pumping station breakdowns at Faversham and Abbeyfield.	We are planning enhanced maintenance where incidents have been caused by mechanical failures.	708
06/10/2021	ODA meeting	North Kent	Sittingbourne, Teynham and Highstead Park	A significant amount of growth is likely and a lot has already been built. 8k new homes are planned to the south and east of Sittingbourne and another 1.25k are planned west of Teynham / Highstead Park. This will increase all the future risks, putting more pressure on SW assets.	Our Future Growth Team works with the planning authorities to understand what growth is planned and ensure the infrastructure is, or will be, in place to support it.	709

Date	Source	River Basin	Specific location	Topic	Response	Ref:
1/09/2020	Workshop 1	Rother	Regional	Budgets will always be a constraint on what can be achieved but if partners can develop multi-benefit schemes specific to the catchment's needs and each contribute relevant skills and resources then real progress can be made.	We agree and welcome any opportunity to develop multi-benefit schemes with relevant partners	61
11/09/2020	Workshop 1	Rother	Rother	One of the major challenges in the catchment is land drainage and preventing storm waters entering the sewer system. The volume of storm water entering sewers could be reduced through improved upstream management of the surface water. The DWMP should be an opportunity to develop collaborations between risk management authorities with interrelated responsibilities to manage land drainage, flooding and pollution.	We agree and want to use the DWMP as an opportunity to develop partnerships with relevant risk management authorities	62
11/09/2020	Workshop 1	Rother	Romney Marshes	The Romney Marshes are a unique and globally important habitat and it is vital that water quality in the catchment, which can be saline in the lower areas, is conserved to protect the flora and fauna dependent on it and its multiple environmental designations.	We understand the importance of the Marshes and have identified that nutrient studies are needed (FAIR.OT01.1 & RYEW.OT01.4) which will cover Dungeoness and the Marshes.	63
11/09/2020	Workshop 1	Rother	Benenden	Benenden has not been flagged under Metric 14 although development is planned in the catchment.	Although growth is planned within the Benenden wastewater system, it was not prioritised for progression in this first cycle of the DWMP. It will be carried forward to a future cycle.	
11/09/2020	Workshop 1	Rother	Regional	Telemetric flow data records water quality and can inform compliance standards. These may need to flexed and made more stringent to allow for more intense conditions.	We recognise this and will comply with any permits set by the EA.	65
11/09/2020	Workshop 1	Rother	Regional	Blockages impact internal and external flooding as well as cause pollutions. The DWMP should show where campaigns can be targeted to reduce fats, oils, grease and wet wipes entering the sewers.	Our investment needs plan will identify target areas for campaigns.	66
11/09/2020	Workshop 1	Rother	Regional	SWS may need to plan for tighter permits to meet different weather conditions which will mean planning for increased costs.	We will comply with any permits set by the EA and we are expecting these to become more stringent.	67
11/09/2020	Workshop 1	Rother	Regional	There are no metrics covering groundwater pollution but there are indications that groundwater is becoming contaminated through direct discharges to ground in areas of the catchment that are not connected to Southern Water's sewers. It is vital that any new developments have appropriate connections into the mains sewers as a means of protecting groundwater.	Groundwater protection has been incorporated as additional objective in the DWMP	68
11/09/2020	Workshop 1	Rother	Regional	Working together will require an effort by all parties, as there are so many organisations involved. It is recognised that this round of DWMPs there is a limited window of opportunity as the timescales are tight but partnerships can identify areas of importance.	We will continue to collaborate with partner organisations throughout the development of the DWMP.	69
19/05/2021	Workshop 2	Rother	Rother	Many wastewater systems are close to the sea so any leakage from the sewers could add to nutrients in Habitat sites.	, ,	254
9/05/2021	Workshop 2	Rother	Battle and Hastings	Battle and Hyde should be considered for inclusion in this round of the DWMP.	Neither wastewater systems were prioritised to be progressed in the first round of the DWMP but will be assessed in future rounds.	255
9/05/2021	Workshop 2	Rother	Rye	If the approximately 90% of runoff component of flow in the sewer could be removed, it could have beneficial effects on a number of the other planning objectives such as nutrients, sewer collapse and internal flooding.	Agreed. We are looking for attenuation wherever possible.	256

Date	Source	River Basin	Specific location	Topic	Response	Ref:
9/05/2021	Workshop 2	Rother	Rye	The high proportion of internal flooding incidents in Rye could be related to the old and historic nature of the town and ageing assets. It would be useful to see if there is any correlation between Rye and other historic town centres.	We will look into this if resources become available.	257
9/05/2021	Workshop 2	Rother	Rye	There are a high number of CSOs in the network relative to the population size so it will be beneficial to improve hydraulic capacity.	A mix of sustainable solutions and storage is being considered for all catchments where CSOs are an issue.	258
9/05/2021	Workshop 2	Rother	Rye	Nutrients are an issue. Improving the quality of the effluent through discharge permits could mitigate the impact of the receiving waters.	We will stay compliant with our permits as issued by the EA.	259
9/05/2021	Workshop 2	Rother	Camber	Internal sewer flooding, flooding in a 1 in 50 year storm, hydraulic overload and nutrients are the key issues and the size of the sewers and concentration of properties may connect these issues.	These issues form part of the ODA.	260
9/05/2021		Rother	Rother groundwaters	Check if there are any links between groundwater pollution in the GPZ (Groundwater Protection Zone) and sewer collapse.	We will investigate the relationship between groundwater pollution and sewer collapse as part of our assessment	262
6/08/2021	ODA meeting	Rother	Rye	A survey to understand the state of the sewer and drainage systems is needed. Sources of flow from outside the combined system where infiltration takes place need to be identified and surface water removal is vital as a long term solution and will need to be addressed in stages. An option could be to update / re-lay drainage systems to separate surface water from foul sewers and if this isn't possible, the sewers should be upgraded / relined.	We have included options addressing this in the ODA (ref RYEW.PW01.2 and RYEW.PW01.4)	419
7/08/2021	ODA meeting	Rother	Rye	A 3 month flow survey to catch both storm and dry data and calibrate these against the model should be conducted.	We have included an option addressing this in the ODA (ref RYEW.OT01.5)	420
7/08/2021	ODA meeting	Rother	Rye	Work with SERT (South East Rivers Trust) to identify and implement attenuation measures in schools by retrofitting and redirecting roof drainage to rain gardens and soakaways.	We have included an option addressing this in the ODA (ref RYEW.OT01.9)	421
7/08/2021	ODA meeting	Rother	Rye	Rye has large parking areas that are already tarmacked providing opportunities for replacing the tarmac with permeable / green surfaces. However, the timing, impact and potential disruption to businesses and trading needs to be considered so incentives could be offered.	We will work with the council to identify suitable places for permeable pavings.	422
7/08/2021	ODA meeting	Rother	Rye	All discharges end up in designated sites. There are concerns over suspended solids and BOD (as well as P and N) as these were not part of the last WINEP. A hydrological assessment of all overflows and sites potentially discharging or contributing to habitats sites needs to be conducted including suspended solids and BOD.	Suspended solids and BOD are currently not part of the DWMP scope. However, we are keen to include this in future cycles of the DWMP and we look forward to working with you on this in the future.	
7/08/2021	ODA meeting	Rother	Rye	An enhanced awareness raising and education programme on blockages should be implemented.	We have included an option addressing this in the ODA (ref RYEW.SC03.1)	424
7/08/2021	ODA meeting	Rother	Sub catchment of Rye	There could be the potential on the North West side of town to separate off the wastewater system and attenuate flows during storms before releasing the flow back into the system as well as increasing pass forward rate at the works so it can treat more of the wastewater arriving at the works.	We have rechecked our data and this part of the catchment already has separate sewers.	425

Date	Source	River Basin	Specific location	Topic	Response	Ref:
01/09/2021	ODA meeting	Rother	Fairlight, Waites Lanes		We have included an option addressing this in the ODA (ref FAIR.OT01.3)	485
02/09/2021	ODA meeting	Rother	Fairtlight WTWs	There is a high spilling storm tank overflow at the treatment works. The storm tank needs to be checked to ensure it is correctly sized and/or operated and SW Operations should be maximising opportunities to empty storm tanks.	This will be investigated as part of the maintenance programme for the works.	486
02/09/2021	ODA meeting	Rother	Fairlight, Waites Lanes and Channel Way	Coastal stability is a real concern along the cliff edge including along Channel Way. There is an opportunity to investigate the management of surface water in this area and a catchment wide scheme to collect and remove it from the cliff face and divert it from the sewer to north of Lower Waites Lane (ie away from the cliff face). This could be a potential partnership project between SW / RDC / ESCC.	We have included an option to address this in the ODA in partnership with Rother DC and East Sussex CC (ref: FAIR.OT01.4)	487
02/09/2021	ODA meeting	Rother	Marsham sewer / Winchelsea levels	The WTW discharges via Marsham Sewer through Pett and Winchelsea Levels. The levels are a very sensitive environment for nutrients. Removal of surface water before the settled storm overflow may enhance the efficacy of the existing tertiary treatment at the works by reducing the duration of peak flows.	We have considered nutrient neutrality as part of the DWMP and have identified an option for a nutirent study and budget (Ref FAIR.OT01.1)	488
09/09/2021	Workshop 1	Rother	Rother		We will work with the EA to ensure our permits are tight enough to cope with more intense weather conditions.	561

Date	Source	River Basin	Specific location	Topic	Response	Ref:
09/09/2020	Workshop 1	Stour	Regional	Ammonia is screened out at WTWs, but not nitrate or microbial contamination, which are not arising from agriculture, but from discharges. Affinity and South East Water also abstract from the aquifers and they have also noticed problems. The issue needs to form part of the DWMP, should have a metric, and needs a strategy.	We are expecting our permits to become more stringent to protect the environment. We have included an objectives for groundwater protection in the DWMP as it is vital to protect this resource for our own water supply and that of neighbouring water supply companies.	36
09/09/2020	Workshop 1	Stour	Regional	More coordination between the DWMP and local plans is required, especially if DWMPs end up being statutory. Most local plans have growth forecasts to 2031 so would be useful for a mid-term assessment. However, the spatial distribution of growth <u>beyond</u> 2031 is not yet determined, and could involve additional urban extensions or freestanding settlements.	We agree and encourage a collaborative way of working between ourselves and relevant stakeholders to ensure these long term issues are taken into account.	37
09/09/2020	Workshop 1	Stour	Regional	Nature based solutions, including SuDS, slowing the flow, upstream storage, must be considered as part of the solutions to drainage, water infiltration, pollution, water quality as well as augmenting water resources.	We agree and will take this into consideration when developing the ODA	38
09/09/2020	Workshop 1	Stour	Regional	SWS needs to base its forecasts of housing and employment growth on over the 5 year period of the DWMP on LPA housing trajectory data to add robustness to the process.	We will look at how we can take this into consideration as we develop the DWMP.	39
09/09/2020	Workshop 1	Stour	Regional	A starting baseline needs to be agreed and a means of measuring targets, trends, timescales and milestones has to be established as well as factoring in consents and targets that will change through time.	The BRAVA assessment will provide the first baseline for the DWMPs.	40
09/09/2020	Workshop 1	Stour	Regional	A Strategic Environmental Assessment must be conducted during the first round of the DWMPs, along with the Habitats Regulation Assessment and WFD assessments.	We are running a 'light touch' SEA as part of the first cycle of the DWMP and are taking the WFD into account through an objective to achieve GES.	41
09/09/2020	Workshop 1	Stour	Regional	Climate change means the conditions are constantly changing and the separation of surface water drains from sewers is becoming critical. Surface (land and highways) drainage interactions with the sewer network incorporating climate change, rainfall (which has doubled since 2000) and growth scenarios need to be modelled. Managing surface water is critical to preventing exceedance of sewer capacity.	The modelling has incorporated climate change scenarios, predicted rainfall and growth.	42
09/09/2020	Workshop 1	Stour	Regional	Explain the difference between metric 3 discharge to sensitive waters Part A, and metric 4 discharge to sensitive waters Part B.	As part of the meeting notes we provided details of the difference between the metrics and showed where it is on our website. It is also explained in the DWMP FAQ on the website	43
09/09/2020	Workshop 1	Stour	Regional	Groundwater contamination by phosphate, nitrate and microbials from non-mains drainage is an emerging issue. It needs to be included as a planning objective	Preventing groundwater pollution is now an additional planning objective that will be applied to all the river basin catchments	44
9/09/2020	Workshop 1	Stour	Newnham sewer	Groundwater infiltration causes major issues in the sewer network. The Newnham sewer should be flagged under the RBCS metric 7 (internal flooding). Many sewers are below groundwater levels which then leak contaminants into the groundwater and/or incur infiltration from groundwater leading to restricted use from customers.	The Newnham catchment has since been flagged under metric 11 (wastewater compliance – dry weather flow) which is an indicator of infiltration in the network and will proceed to BRAVA	45
09/09/2020	Workshop 1	Stour	Regional	It is crucial to align the DWMP with other plans including the WINEP programme to address cumulative impacts and dependencies which will enable more options to be considered at the appraisal stage.	The DWMP will be aligned with other plans including WINEP as much as possible in this first iteration.	46

Date	Source	River Basin	Specific location	Topic	Response	Ref:
09/09/2020	Workshop 1	Stour	Regional	Modelling flood risk for a lower return period such as a 1 in 20 year storm event would be of value in this catchment as it is particularly vulnerable to sewer flooding.	We incorporated this by developing a 'bespoke' company objective and methodology for 'Annualised Flood Risk' - see BRAVA outputs and subsequent consideration in the DWMP.	47
09/09/2020	Workshop 1	Stour	Regional	No WTWs have been flagged under metric 10 on WQ compliance, but the level of phosphorus (a cause of eutrophication) in effluent discharged to rivers in the catchment is too high. If phosphorus is too high it may mean that the permits for these site may need to be updated by the EA.	Southern Water is conducting a WINEP investigation into nitrate and phosphorous discharges during this AMP (2020 - 2025) and that will inform the next steps to be taken.	48
09/09/2020	Workshop 1	Stour	Regional	The DWMP needs to be aligned with the EA's Shoreline Management Plans to identify what infrastructure is at risk.	Understanding the impact of coastal erosion on our assets has been deferred to the next round of DWMPs. This will allow us to work with the Environment Agency and local councils to obtain data on predicted rates of coastal erosion and develop a robust methodology for an assessment of current and future risks.	49
09/09/2020	Workshop 1	Stour	Herne Bay, Canterbury, Chartham and Westbere	The RAMSAR and National Nature Reserve designations mean that WINEP (Water Industry National Environment Programme) and nutrient neutrality requirements apply. May Street Herne Bay, Canterbury, Chartham and Westbere are all in the WINEP investigation and should be categorised as Tier 1 not 2.	These were re-categorised following the meeting and were included in the BRAVA	50
09/09/2020	Workshop 1	Stour	Regional	The traditional way of identifying issues in one AMP, assessing and planning how to address these in the following AMP and then implementing in the next will not be adequate. It will take too long. It is critical to start the investment planning now and to have greater flexibility around funding schemes to ensure long-term outcomes can be met.	We agree with approach and will do our best to develop thinking and partnership schemes. However, we are bound by the government's Price Review and WINEP cycles before we know what funding we will have to implement schemes, in partnerships or otherwise.	51
21/01/2021	Workshop 2	Stour	Swalecliffe	Hydraulic modelling is needed to confirm the cause of the high spilling overflows and investigative research to understand the link between hydraulic issues and shellfish waters / CSO spills / electrical failures at pumping stations	We have identified a number of investments needed to improve our hydraulic models in the Stour RBC.	120
26/04/2021	Workshop 2	Stour	Swalecliffe	Reducing surface water runoff into the sewer might improve WQ as there will be less spills from overflows and it would create treatment headroom at the WTW	Agreed. Addressing surface water run off to prevent it entering the sewers is a key aim of the DWMP and we want to work in partnership with relevant organisations to find suitable locations where flows can be separated and / or slowed.	121
26/04/2021	Workshop 2	Stour	Stodmarsh	Stodmarsh is affected by nutrients and should be flagged for the WINEP programme.	We have identified the nutrient study for Stodmarsh (already underway) and will submit schemes for WINEP funding depending on the EA's criteria.	122
26/04/2021	Workshop 2	Stour	Kent Garden Cities	The large growth of the garden cities in Kent needs to be considered and could steer improvements.	We view growth as an opportunity for sustainable development and will work with the council and developers to ensure drainage from new developments does not exacerbate current issues and that our systems have capacity to cope with the proposed leves of growth.	123
26/04/2021	Workshop 2	Stour	East Kent	East Kent is still settling after mining activities and hence there is the potential risk of sewer collapse.	Thank you. We have proposed sewer integrity surveys and will take ground conditions into account as we progress the DWMP.	124
26/04/2021	Workshop 2	Stour	Deal and Dover	Housing growth planned in Deal and Dover is detailed in the Local Plan.	Yes - our future growth team is aware of plans for new development sites.	125
26/04/2021	Workshop 2	Stour	Weatherlees	Weatherlees Hill is an environmentally sensitive systems with SSSI, SPA and SPZ designations.		126

Date	Source	River Basin	Specific location	Topic	Response	Ref:
26/04/2021	Workshop 2	Stour	Weatherlees	Hydraulic overload is a particular area of interest but local knowledge should be tapped into. It causes spills to the environment, is high on the political agenda and may be the focus of permitting and legislation in the future.	We will continue to collaborate with partner organisations throughout the development of the DWMP.	127
26/04/2021	Workshop 2	Stour	Weatherlees	Groundwater infiltration of the sewers needs to be investigated.	Infiltration has been investigated under the DWF objective and we have a number of studies to check the integrity of our sewers.	128
26/04/2021	Workshop 2	Stour	Weatherlees	Storage solutions as well as fitting non-return valves in properties subject to internal flooding should be considered especially in groundwater driven areas.	Yes - we will need to look at short term measures to protect people's properties whilst longer term, sustainable solutions are developed and implemented.	129
19/05/2021	Workshop 2	Stour	Canterbury, Stodmarsh		We have included an option addressing this in the ODA (ref CANT.OT01.5)	261
27/05/2021	Correspondence	Stour	Regional	Nutrient neutrality is a major blocker to the delivery of much-needed new homes. All catchments with very significant NN scores should be prioritised as 'red' or at the least, progressed forward. Proposed developments can mitigate by providing water efficiency measures or wetlands etc but these are only short term fixes and we are reliant on WTW upgrades	We have selected our priority catchments based on a number of different factors including nutrient neutrality. We look forward to work with you on the DWMP regarding this in the next cycle.	300
27/05/2021	Correspondence	Stour	Canterbury	Our overriding concern is nutrient neutrality which is preventing homes being built in our district and wider East Kent. Column PO11 NN does not reflect the advice from Natural England.	Thank you for your comments regarding nutrient neutrality. We have included an investment need to investigate nutrients in the Canterbury system as part of the ODA (CANT.OT01.5).	301
27/05/2021	Correspondence	Stour	Stour	Could you also please provide further information on why the primary driver of nutrient neutrality is labelled as unknown?	The data to determine the primary drivers was not available at the time the PC was carried out. We will work to improve data collection in cycle 2 of the DWMP so information such as primary drivers can be determined	
27/05/2021	Correspondence	Stour	Chartham and Canterbury	The percentage increase in growth is not reflective of where the most actual growth is in the Stour River Basin. Chartham shows proportionally high population growth compared to Canterbury but in real terms, growth will be much larger in Canterbury.	Thank you for this information. We will take it into consideration as we progress the DWMP	303
27/05/2021	Correspondence	Stour	Canterbury, Dambridge Wingham & Westbere	Our understanding is that areas included in the Stodmarsh NN Advice,	These have not been identified as significant in the BRAVA. We will, resources permitting, check on this. However, all three wastewater systems are included in the nutrient balance investigation and the net result will be the same as if the BRAVA assessment had been significant.	304
27/05/2021	Correspondence	Stour	Stour	As nutrient neutrality is a major blocker to the delivery of much-needed new homes, we would ask that all catchments with very significant scores for nutrient neutrality are prioritised as 'red' or at the least, they are progressed forward. We are looking at how proposed developments can mitigate the issue by providing water efficiency measures or wetlands etc but these are only short term fixes and we are reliant on WWTW upgrades.	Of all the 5 catchments scoring Band 2 for NN in the BRAVA, only Chartham has been progressed in this first cycle of the DWMP. This is because Ashford, Newnham Valley Preston, Sellindge and Wye were ranked lower in the overall assessment than catchments such as Swalecliffe and Weatherless Hill. However, we will progress these as soon as we can as we understand the importance of the impact nutrients are having on development potential.	305

Date	Source	River Basin	Specific location	Topic	Response	Ref:
03/08/2021	ODA meeting	Stour	Ramsgate, Weatherlees Hill	Storm overflow performance changes from Band 0 in 2020 to Band 2 in 2050. Although the risk is currently not significant, a better understanding and assessment of ongoing performance is needed in order to project how soon the significant risk threshold will be reached.	The work on Storm Overflows as part of the DWMP has been taken further as part of the work by Southern Water's Storm Overflow Taskforce. We are complying with Defra's current guidance. We will also re-evaluate storm overflows as part of the next cycle of the DWMP.	373
10/08/2021	ODA meeting	Stour	Ramsgate, Weatherlees Hill	Infiltration resulting from hydraulic overload is known to be high in the catchment and is likely to be contributing to flooding and storm overflow performance issues. Further investigations into the sources of infiltration are recommended.	We have included an option addressing this in the ODA (ref WEAT.PW01.7)	374
10/08/2021	ODA meeting	Stour	Ramsgate town storage tank, Weatherless Hill	The storage tank system under Ramsgate town with an approximate capacity of 40,000 m3 that needs to be rehabilitated and remobilised for utilisation during storms.	We have included an option addressing this in the ODA (ref WEAT.OT01.10)	375
10/08/2021	ODA meeting	Stour	Military Road Ramsgate Harbour, Weatherless Hill	Military Road Ramsgate Harbour has had several pollution incidents due to bursts in the rising main from hydrogen sulphide gas (emitted from wastewater) corroding the pipe material, rather than due to blockages. Rehabilitation is required.	We have included an option addressing this the ODA (ref WEAT.PW01.5)	376
10/08/2021	ODA meeting	Stour	Ramsgate town, Wealtherlees Hill	It is possible that pollution, internal flooding and blockages in Ramsgate are all connected and associated with an old sewer network. A combination of low water levels in the sewers and significant parts of the route having a flat profile may contribute to a higher number of blockages. It is recommended that this is investigated further and locations identified for work where there are repeat blockages or internal flooding.	We will investigate this in cycle 2 of the DWMP	377
10/08/2021	ODA meeting	Stour	Ramsgate, Weatherlees Hill	Flood mitigation measures at property level should be considered in the short term.	We will look into this as a short term fix whilst more sustainable solutions are developed.	378
10/08/2021	ODA meeting	Stour	Ramsgate Harbour	There have been at least 4 sewer collapses in the last three years. The cluster along the harbour needs to be targeted for enhanced maintenance.	We have included an option addressing this in the ODA (ref WEAT.PW01.5)	379
10/08/2021	ODA meeting	Stour	Ramsgate, Weatherlees Hill	There is a possible link between the pumped flow rate that can exceed the design capacity of the rising mains in severe rainfall. This needs to be checked.	Thank you your comment on this. We will take this forward as the design process continues.	380
10/08/2021	ODA meeting	Stour	Ramsgate, Weatherlees Hill	The wastewater network is old but is not well maintained and hence collapses and bursts occur. Improvements in maintenance regime must be implemented.	We have included an option addressing this in the ODA (ref WEAT.PW01.5)	381
10/08/2021	ODA meeting	Stour	Ramsgate, Weatherlees Hill	A large cluster of sewers in poor structural condition around the old town are just outside the groundwater source protection zone (SPZ). This is also a sewer collapse hot spot, and improvements in the condition of sewers is required to protect the groundwater resource from pollution.	We have included an option addressing this in the ODA (ref WEAT.PW01.5)	382
10/08/2021	ODA meeting	Stour	Thanet Sewer Scheme, Ramsgate, Weatherlees Hill	Southern Water's ongoing Thanet Sewer Scheme includes lining the adit sewer system to reduce groundwater pollution. The scope of the Thanet Scheme needs to be checked so the extent of groundwater vulnerability can be understood and any additional risk scoped under a separate scheme.	We will check the scope of the Thanet Scheme in order to understand groundwater vulnerability and any risk scoped under the option We have included in the ODA (ref WEAT.PW01.7) which includes proactive sewer rehabilitation	383
10/08/2021	ODA meeting	Stour	Ramsgate, Weatherlees Hill	Install an intelligent sewer network to identify sources of infiltration and areas vulnerable to exfiltration of foul flows into the ground.	We will explore this opportunity further in cycle 2 of the DWMP	384
10/08/2021	ODA meeting	Stour	Sandwich	A customer campaign should be undertaken to reduce blockages in the network causing internal flooding.	We have included an option addressing this in the ODA (ref WEAT.SC03.1)	385

Date	Source	River Basin	Specific location	Topic	Response	Ref:
10/08/2021	ODA meeting	Stour	Sandwich	Sewer collapses and pollution incidents within the SPZ are a risk to groundwater.	Special consideration was given to SPZ in our groundwater pollution assessment, we gave a higher weighting to sewer network intersecting with SPZ when scoring risks.	386
0/08/2021	ODA meeting	Stour	Sandwich	Pollution incidents caused by rising mains bursts with a history of failing and poor structural condition of sewers, possibly due to septicity causing corrosion in the pipe along the long transfer route, needs to be addressed.	We have included an option addressing this in the ODA (ref WEAT.PW01.8)	387
0/08/2021	ODA meeting	Stour	Golf Road CSO, Deal	Golf Road CSO is in proximity to the SAC and SPA designated sites and has a potential impact on ecological status. This needs investigation.	Thank you for informing us about this. We will take this forward as we progress the design options.	388
0/08/2021	ODA meeting	Stour	Deal	Restoring the structural integrity of leaking sewers is critical to improving the ecological status of the underlying Thanet Chalk.	We have included an option addressing this in the ODA (ref WEAT.PW01.5)	389
0/08/2021	ODA meeting	Stour	Weatherlees Hill A WTWs, Deal	The quality of treated effluent from Weatherlees Hill A WTW needs to be improved to reduce impact on the Monkton and Minster Marshes	The DWMP aims to improve water quality in a number of ways and we are looking at multiple options to manage this.	390
0/08/2021	ODA meeting	Stour	Weatherlees Hill B WTWs	Weatherlees Hill B WTW discharges into Minster Stream in the Marshes, which flows into Sandwich Bay. Natural England have yet to review the impact of Thanet discharges on Sandwich Bay. It does not discharge into the Stour and therefore does not affect Stodmarsh. However, it is important to consider groundwater flux in adjacent areas that impact on the Stour and Stodmarsh.	We will take this into consideration while developing the ODA	391
0/08/2021	ODA meeting	Stour	Deal	Reducing the amount of surface runoff entering network will help to reduce the number and volume of spills from overflows. This could include disconnecting surface water drains upstream of the overflows. Identify areas where this could be implemented.	We have included options addressing this in the ODA (ref WEAT.PW01.27 to WEAT.PW01.33)	392
0/08/2021	ODA meeting	Stour	Deal	Smart networks to optimise available storage within the network should be considered.	We have identified that smart networks / CCTV surveys are needed across the catchment (ref: WEAT.PW01.5)	393
0/08/2021	ODA meeting	Stour	Deal	There are storage tanks within the network that could be better mobilised during storms, but these may require some rehabilitation.	We have included an option addressing this in the ODA (ref WEAT.OT01.11)	394
4/08/2021	ODA meeting	Stour	Hampton, Herne Bay	The West Brook joins the sea as a large surface water sewer west of Hampton. There is a reasonable amount of open space in the surrounding area to accommodate SuDS	We have included an option addressing this in the ODA (ref HERN.SC01.1)	450
6/08/2021	ODA meeting	Stour	Greenhill and Herne Bay Golf Course	Identify potential areas for SuDS to mitigate surface water flooding in regards to the large housing developments in the Greenhill and Herne Bay Golf Course area	We will work with relevant parties to identify potential areas as the proposal develops.	451
6/08/2021	ODA meeting	Stour	New Thanet Way (A299), Herne Bay	Runoff from New Thanet Way (A299) could be captured, attenuated and treated in Reed Beds (or similar) along the side of the motorway as a more sustainable solution, before being treated at the Works.	We have included an option addressing this in the ODA (ref HERN.PW02.1)	452
6/08/2021	ODA meeting	Stour	Hogwell Sewer, Herne Bay WTW	Install a reed bed in the Hogwell Sewer for the WTW to discharge into to further treat effluent.	We have included an option addressing this in the ODA (ref HERN.RC03.1)	453
6/08/2021	ODA meeting	Stour	Herne Bay	Identify misconnections and a plan to tackle these.	We have included an option for this in the ODA (ref HERN.OT01.1)	454
6/08/2021	ODA meeting	Stour	Gainsborough & Glenbervie Drive, Reculver Road &	Implement the DAP options to address internal flooding at Gainsborough Drive, Glenbervie Drive, Reculver Road & Wantsum Close by upsizing storage capacity and increasing flow at the WPS.	We have included internal flooding measures such as DAP options where possible throughout the Stour area as part of the DWMP. We look forward to working with you on this in the future.	455

Date	Source	River Basin	Specific location	Topic	Response	Ref:
26/08/2021	ODA meeting	Stour	Plenty Brook Drive, Eddington Lane & Pettman Close	Implement the DAP options to address external flooding at Plenty Brook Drive, Eddington Lane & Pettman Close by extending the balancing reservoir.	We have included an option addressing this in the ODA (ref HERN.PW01.2)	456
26/08/2021	ODA meeting	Stour	Grange Road, Reculver Road and Sea View Road	Impliment the DAP option to address internal and external flooding along Grange Road, Reculver Road and a small section of Sea View Road by upsizing the sewers.	We have incorporated DAP options in to the DWMP where possible.	457
26/08/2021	ODA meeting	Stour	New Bullockstone, Herne Bay	Implment the DAP option to separate flows by adding new system to the existing one at the New Bullockstone development.	We have included an option addressing this in the ODA (ref HERN.PW01.5)	458
26/08/2021	ODA meeting	Stour	Sweechbridge and Lower Hern Roads.	Implement the DAP option to create additional storage capacity in the systems through online storage on Sweechbridge and Lower Hern Roads.	We have included an option addressing this in the ODA (ref HERN.PW01.3)	459
26/08/2021	ODA meeting	Stour	Parsonage Road	Implment the DAP option to create additional conveyance capacity by upsizing the pipes at Parsonage Road.	We have included an option addressing this in the ODA (ref	460
26/08/2021	Correspondence	Stour	Charing	Looking for potential wetland areas, ideally below sewage works, is a bit of a challenge in the catchment. The stand out opportunity is below Charing although this wont be one of your priority areas. How does the sewage works operate regarding releases of effluent? There are 2 waterbodies running beside/ from the sewage works, one which runs from above and to the immediate west of the works which carries on down to the Stour, and a drain which appears to arise in the South East corner of the sewage works and then links to the stream further down. Is this drain taking the treated water into the stream or is the water released into the stream? The field below the sewage works is rough pasture, on clay. The stream is fairly naturalised with low banksides and a clear floodplain on the edge of this field.	Thank you for your feedback on this catchment. We will take your comments forward as we progress the designs and further develop the DWMP. We are already undertaking a study and investigation into nutrients within the Stodmarsh area so we will take these comments forward.	461
02/09/2021	ODA meeting	Stour	Chartham SPZ	The location of rising main bursts leading to pollution incidents are an issue for groundwater as they have been on the SPZ. This needs to be investigated.	We have included an option addressing this in the ODA (ref CHAR.PW01.2)	505
03/09/2021	ODA meeting	Stour	Chartham SPZ	The BRAVA risk assessment for groundwater pollution should be checked as it shows a Band 0. There is evidence of groundwater	All SPZ are treated equally in the BRAVA using data between 2017-2020. The BRAVA was undertaken on the length and condition grade of sewers in SPZ and although there are some of grades 4 & 5 within the SPZ the BRAVA shows groundwater risk as zero. The BRAVA for Good Ecological Status also would have picked up any risk from leaking sewers into the East Kent chalk.	506
03/09/2021	ODA meeting	Stour	Chartham SPZ and Stodmarsh	Groundwater should be assessed for inclusion in assessing Stodmarsh quality as the groundwater itself may be a source of nutrients.	We will take this information into consideration	507
03/09/2021	ODA meeting	Stour	Chartham WTW	There is a need to clarify if there is a nutrient consent and / or tertiary treatment in place at Chartham WTW as this is not believed to be the case.	We are currently undertaking a study and investigation on nutrients within the Stodmarsh area in AMP7 so we will look into this further. We look forward to working with relevant partners as this moves forward.	508

Date	Source	River Basin	Specific location	Topic	Response	Ref:
03/09/2021	ODA meeting	Stour	Stodmarsh	Stodmarsh is limiting growth in the Chartham area and it would be helpful if SW could share any interim findings on the CSMG (?) study.	We have included an option addressing this in the ODA (ref CHAR.OT01.3)	509
03/09/2021	ODA meeting	Stour	Chartham	There is no major growth showing for the catchment, but this is due to the constraints imposed by Stodmarsh.	Thank you - this is helpful to know.	510
03/09/2021	ODA meeting	Stour	Tivoli Gardens, Northdown Park and Dane Park, Margate	Tivoli gardens is a natural low spot in the topography and a likely flooding location. The area provides a good opportunity to change how surface water is managed as very little is discharged through soakaways - instead a large volume ends up in the sewers. There are opportunities for surface water soakaways at Northdown Park and Dane Park. Partnerships may be necessary to make surface water separation schemes achievable within acceptable timescales.	We appreciate your contribution to the DWMP, we have included an option addressing this in the ODA (ref WEHB.PW01.5)	511
06/09/2021	ODA meeting	Stour	Margate	Extend the Thanet Sewer Scheme to include sewer replacement in Margate, due to start in AMP8.	Thank you for highlighting this scheme to us. We will look at how we can align with it as we progress the DWMP.	512
06/09/2021	ODA meeting	Stour	Margate & Broadstairs WPSs.	The main pollution risks are from the two large pumping stations - Margate WPS and Broadstairs WPS. Rectify operational issues to reduce spills and pollution linking with Southern Water's asset resilience programme. This is vital as both are in close proximity to sensitive receptor environments and bathing waters. Increase storage available at the Pumping Stations to contain flows in the event of breakdowns	We are already investigating these as part of our resilience programme.	513
06/09/2021	ODA meeting	Stour	All Saints Avenue, Canterbury Road and Arlington Square, Margate & Ramsgate Road, Broadstairs	The quantity of rainwater being pumped through the network is not sustainable. Any opportunities to reduce this quantity by providing SuDS and surface water separation schemes will have a positive impact on the frequency and volume of spills from pumping stations should be taken. Opportunities should be identified by working in partnership upstream of these location to reduce flows into the system and surface water flooding.	We have included options addressing this in the ODA (ref WEHB.PW01.6 and WEHB.PW01.7)	514
06/09/2021	ODA meeting	Stour	Margate Emergency Overflow and the beach	Consideration must be given to extending the Margate Emergency Overflow to below the tide line. It currently discharges directly to the beach.	We will consider the option as we develop the ODA.	515
06/09/2021	ODA meeting	Stour	Margate & Broadstairs	More storage and greater pass forward flows at the treatment works are options that should be considered.	We have incorporated a series of options to minimise flooding through greater capacity and storage and will look into the pass forward flows as business as usual operations.	516
06/09/2021	ODA meeting	Stour	Margate & Broadstairs	The groundwater SPZs (Source Protection Zones) used by the DWMP do not necessarily fully represent the modelled abstraction zones used by other water companies. The SPZs are reviewed and consulted on in a formal process by the EA and the review for East Kent is pending. Modelled abstraction zone boundaries are often larger than the SPZ as they are unconstrained by the need for agreement by external partners.	We are working with neighbouring water supply companies to understand how our wastewater systems impact on their supply areas.	517
06/09/2021	ODA meeting	Stour	Margate & Broadstairs	SW should facilitate new connections to the sewer to reduce the number of private discharges that adversely affect groundwater.	We facilitate sewer connections for all new development. Connecting existing properties into the mains sewers would certainly help with reducing the risk of groundwater pollution from private discharges but SW does not currently have powers to enforce this. We will want to work with government to influence an update to the regulations and would be keen to implement this in the future.	518

Date	Source	River Basin	Specific location	Topic	Response	Ref:
06/09/2021	ODA meeting	Stour	Bromstone area, Broadstairs	The condition of sewers in the Bromstone area where the wastewater system is within the groundwater capture zone need to be checked and reline/repair sewers where they are in poor condition to reduce exfiltration of sewage into the groundwater.	We have included an option addressing this in the ODA (ref WEHB.PW01.9)	519
06/09/2021	ODA meeting	Stour		The condition of sewers in the two areas of the system adjacent to the airport where the wastewater system is within the groundwater capture zone needs to be checked and reline/repair sewers where they are in poor condition to reduce exfiltration of sewage into the groundwater.	We have included an option addressing this in the ODA (ref WEHB.PW01.9)	520
06/09/2021	ODA meeting	Stour	Margate Old Town	Blockages and sewer collapses have led to a high number of internal flooding incidents of properties in Margate, especially the Old Town. Conduct sewer condition surveys and integrity checks, and re-line as required to prevent collapse / blockages. Remove Buchan Traps to reduce number of blockages and run targeted education campaign to reduce blockages from FOG and unflushables.	We have a number of options to reduce blockages including ref; WEHB.PW01.1	521
06/09/2021	ODA meeting	Stour	Margate & Broadstairs	There are unmapped springs from the chalk all along the shore of North Thanet and an ongoing programme of network improvement should help to reduce the risks to groundwater.	Yes - we hope this is the case.	522
06/09/2021	ODA meeting	Stour	Margate & Broadstairs	The chalk geology may make constructing wetlands unfeasible in this area due to the risk of groundwater contamination.	Thank you for this information which we will take into account as we progress the DWMP	523
06/09/2021	ODA meeting	Stour	Margate & Broadstairs	Dane Park used to be in an SPZ . It is important to note the interaction between the groundwater and the surface water in such locations.	Again, we will consider this as we progress the DWMP.	524
14/09/2021	ODA meeting	Stour	Westbere	There is a future risk of non-compliance of treated effluent quality affecting nutrient neutrality and good ecological status. Tight phosphorus and nitrogen permits may be required at the WTW.	We have included an option addressing this in the ODA (ref WBER.OT01.2)	586
14/09/2021	ODA meeting	Stour	Stodmarsh SSSI, Westbere		We have included an option addressing this in the ODA (ref WBER.OT01.1)	587
14/09/2021	ODA meeting	Stour	Westbere WTWs	WTW inlet works is a high spiller with discharges affecting the quality of the Great Stour receiving watercourse. Capacity issues at the WTW inlet works could be addressed through larger storm tanks.	We have included an option addressing this in the ODA (ref WBER.PW02.2)	588
14/09/2021	ODA meeting	Stour	Chislet Park Farm Hersden EMO, Westbere	There have been pollution incidents in the network around Chislet Park Farm Hersden EMO (emergency overflow). There is a need to improve the resilience of the EMO performance. A storage tank at the EMO would attenuate peak flows and reduce spills due to hydraulic overload	We will take this into consideration in cycle 2 of the DWMP.	589

Date	Source	River Basin	Specific location	Topic	Response	Ref:
14/09/2021	ODA meeting	Stour	Aylesham, Dambridge Wingham	The whole of the western area is a large drainage zone, and may be linked to infiltration issues in the network. Aylesham is known to have high groundwater infiltration, reported to be above 50% of dry weather flow (DWF), and is having an impact on DWF compliance at the WTW. Results from a previous infiltration study will be reviewed alongside a new infiltration study to identify sources of groundwater ingress and measures to reduce infiltration.	Thank you for sharing this information with us. We look forward to working with you on infiltration in the future.	590
14/09/2021	ODA meeting	Stour	Dambridge Wingham	There is a risk of exfiltration of sewage into the ground in summer months when groundwater levels are low. The extent of sewers in poor condition needs to be understood.	We have included an option addressing this in the ODA (ref DAMB.PW02.0)	591
14/09/2021	ODA meeting	Stour	Wingham River	The Wingham river is rated as poor quality with low flows, low DO and is silty providing a poor fish habitat. It flows to the Little Stour below Stodmarsh and into the Little Stour. Surrounding land uses are likely to be the main cause as well as shrinking peat and old coalfields in the area, but any issues with the WTW and effluent will exacerbate the ongoing issues. The contribution of wastewater to the issues in the river as well as the lakes and streams around Stodmarsh needs investigation, sampling and monitoring.	DAMB.OT01.4)	592
14/09/2021	ODA meeting	Stour	Grove Road Preston WPS, Dambridge Wingham	Most pollutions have taken place at Grove Road Preston WPS caused by sewer blockages and operational issues. Improved upstream sewer jetting will reduce the risk of pump blockages and smart sewer level monitoring and high surcharge level warning is needed.	We have included an option addressing this in the ODA (ref DAMB.PW01.6)	593
14/09/2021	ODA meeting	Stour	Dambridge Wingham	Internal flooding incidents are scattered across the catchment mainly caused by blockages or hydraulic overload. The number is very low compared to other catchments, but if they continue or further incidents occur, then the causes need to be investigated and action taken reinforced by customer awareness campaigns, possibly targeting schools, and a programme of sewer jetting. There are opportunities to work on customer education campaigns with the Catchment Partnership and to install smart meters in key legs of the system to move from reactive responses to sewer blockage incidents to proactive sewer management.	We have included options addressing this in the ODA (ref DAMB.SC03.1, DAMB.PW01.9 and DAMB.PW01.5)	594
14/09/2021	ODA meeting	Stour	Dambridge Wingham	Nearly 90% of flow in the network during storms is from road runoff only, with no roof runoff. The model should be investigated to ensure it is correct.	We have included an option addressing this in the ODA (ref DAMB.OT01.5)	595
14/09/2021	ODA meeting	Stour	Dambridge Wingham	The surface water network is not well mapped and the route through which storm water enters the network needs to be investigated.	We agree and will work to ensure network mapping is improved in cycle 2 of the DWMP. We will investigate the route of storm water entry to the network in cycle 2.	596
14/09/2021	ODA meeting	Stour	Dambridge Wingham	Surface water separation is always a good idea but is not likely to positively affect flows in the Wingham as the problems do not seem to be driven by flooding. However, unconstrained options could look at finding areas for surface water separation.	We will be actively looking for ways to separate and / or slow the flow of rainwater entering the sewers. We will look forard to hearting about any potential ways and schemes to do this.	597

Date	Source	River Basin	Specific location	Topic	Response	Ref:
28/09/2021	ODA meeting	Stour	Swalecliffe WTW	Surface water runoff in storm conditions is predicted to increase by 2050 due to forecast impacts of creep and climate change. Identify areas of surface runoff that can be disconnected from the wastewater network and provide storm water SuDS to reduce frequency and volume of spills at WTW inlet works.	We have included an option addressing this in the ODA (ref SWAL.OT01.4)	644
28/09/2021	ODA meeting	Stour	Swalecliffe WTW	Investigate increasing the storage capacity of primary storage tanks at the WTW to handle greater storm volumes in excess of Formula A flow that is passed forward to full treatment.	We will investigate this in cycle 2 of DWMP.	645
28/09/2021	ODA meeting	Stour	Whitebridge Farm Seasalter WPS	Whitebridge Farm Seasalter WPS has no environmental permit but it overflows to ditches in the marshes on the western perimeter of the catchment. A discussion on the requirement for a permit is needed with the EA.	We will follow this up with the EA to determine if a permit is needed.	646
28/09/2021	ODA meeting	Stour	Swalecliffe	Misconnections of surface water draining into foul / combined public sewers is a problem and needs to be investigated to identify where misconnections may be concentrated in the catchment.	We will investigate this in cycle 2 of DWMP.	647
28/09/2021	ODA meeting	Stour	Swalecliffe	There is a need to identify, target and prioritise surface water separation and removal where the greatest opportunities are available.	We will explore potential solutions with relevant organisations as the DWMP is progressed.	648
28/09/2021	ODA meeting	Stour	Swalecliffe	Collaborate with the Catchment Partnership to identify blockage hot spots and implement a targeted customer education programme to reduce amount of FOG and unflushables discharged into the sewer network.	We have identified investment to target blockage hotspots (SWAL.SC03.1) and will work with the CP as this is implemented.	649
28/09/2021	ODA meeting	Stour	Grasmere Gdns, Chestfield & the Joseph Wilson Business Park, Whitstable.	There is growth pressure as a result of new developments, planned to comprise over 300 residential units and employment / industrial space in Grasmere Gardens, Chestfield, and the Joseph Wilson Business Park, Whitstable. Currently, there is insufficient capacity for these developments in the wastewater network.	We have identified a need to review capacity to accomodate growth in the catchment (SWAL.PW02.2) and will engage with the EA to review the DWF permit.	650
28/09/2021	ODA meeting	Stour	Swalecliffe Brooke, Shellfish and Bathing Waters	Fish kills have been recorded in Swalecliffe Brook due to discharges from Grasmere Road Chestfield CSO. SW has prioritised addressing the risk of spills to the environment from storm overflows.	SW is currently undertaking investigations as part of the WINEP Urban Pollution Investigations programme on the root causes of pollution from storm overflows in Swalecliffe. We are also considering what the most sustainable means of preventing spills as part of a 'Pathfinder' project at Swalecliffe to address pollution risks.	
28/09/2021	ODA meeting	Stour	Swalecliffe WTW	Addressing the root cause of pollution (mechanical and electrical faults) and reducing the volume of runoff entering the wastewater network will decrease the risk of spills from the WTW.	We have identified an investment need (SWAL.PW02.3) to address this issue and SW's Resilience Programme will reduce mechanical and electrical issues at the WTWs.	652
28/09/2021	ODA meeting	Stour	WTWs Short Sea Outfall	There is an AMP7 scheme to replace the Short Sea Outfall from the WTW as it has critical structural damage and inadequate hydraulic capacity to discharge storm flows to sea. There are no hydraulic capacity issues in the treatment process.	Thank you for your contribution, we will take this into consideration as we progress the DWMP.	653

Date	Source	River Basin	Specific location	Topic	Response	Ref:
25/09/2020	Workshop 1	Test & Itchen	Solent Area and chalk streams	Achieving nutrient neutrality should be an ambition for the DWMP particularly for the Solent and the catchment's chalk rivers.	GES and NN objectives have been incorporated into the DWMP	98
29/09/2020	Workshop 1	Test & Itchen	Test & Itchen	Although 93% of the homes in the catchment are connected to the mains network, the remaining 7% in rural areas are not. The underlying chalk aquifer is vulnerable to pollution from septic tanks or discharges direct to the ground as well as infiltration by agricultural and road contaminants. It is critically important to prevent groundwater pollution as there are a number of significant abstraction zones in the catchment	We agree that preventing groundwater pollution is critical and have included an additional planning objective in the BRAVA stage of the DWMP. Solutions to mitigate this will explored when developing the ODA	99
29/09/2020	Workshop 1	Test & Itchen	Regional	DWMPs have 'drainage' in the name and therefore must look wider than concerns with the sewer network to incorporate other drainage issues. Naturalised flood management schemes should be considered as part of the solutions.	We agree. We are looking to use nature based solutions wherever possible to address the challenges ahead in the most sustainable way possible.	100
29/09/2020	Workshop 1	Test & Itchen	Test & Itchen	In view of the significant volume of planned residential development and urban creep within the catchment, the capacity and health of SWS's assets for the future climate should be reviewed.	We have developed a long term risk assessment as part of the DWMP which takes capacity, climate change, creep and the resilience of our assets into account .	101
29/09/2020	Workshop 1	Test & Itchen	Regional	The capacity of combined sewer systems that drain both surface and foul water can be exceeded during extensive rainfall and extreme weather events and then excess storm water is discharged via CSOs. These discharges can impact the water quality of the rare chalk stream habitats. Reducing CSO spills by separating surface water drainage from foul will help address capacity issues and needs to be prioritised for early, collaborative action.	We totally agree and are looking to work in partnership to find suitable locations where separation can be achieved.	102
29/09/2020	Workshop 1	Test & Itchen	Regional	A key objective for the DWMP should be biodiversity net gain.	We are considering how to increase natural capital in any future scheme and expect it to become a formal objective in Cycle 2 of the DWMP.	103
29/09/2020	Workshop 1	Test & Itchen	Regional	It is vital to future-proof the DWMP strategy in terms of resilience to the impacts of growth, climate change and rising sea levels, and to ensure biodiversity net gain and carbon neutrality are core to its objectives.	We have developed a long term risk assessment as part of the DWMP which takes capacity, climate change, creep and the resilience of our assets into account. We expect to increase natural capital and rive down carbon as part of any sustainable approach to the issues. Carbon neutrality and biodiversity net gain were not part of the formal objectives in this first cycle of the DWMP but we will include them in subsequent cycles.	104
29/09/2020	Workshop 1	Test & Itchen	Regional	Permits need to be tightened to account for a reduction in the dilution of the effluent during periods of drought.	We will comply with any permits as set by the EA.	105
29/09/2020	Workshop 1	Test & Itchen	Regional	The DWMP should be ambitious and taken as an opportunity to create holistic approaches to long-term issues, and join up local delivery such as addressing water shortages and achieving carbon neutrality.	We agree and are working with our internal colleagues on the WRMP and intergrated catchment risk management, as well as external partners to develop an holistic approach.	106
29/09/2020	Workshop 1 - Simon Cramp	Test & Itchen	Regional	The recent Water Resources South East (WRSE) multi-sector resilience workshop introduced a strong environmental commitment. The objective is to capture water resource and water quality schemes across the region's catchment that can be included in the WRSE plan with the overall aim of improving the health of rivers and other waterbodies across the South East. The DWMP should incorporate similar objectives	This is one of SW's overall principles and a key ambition for the DWMP.	107

Date	Source	River Basin	Specific location	Topic	Response	Ref:
30/09/2020	Post webinar 2 communication	Test & Itchen	Morestead and Harestock	Morestead and Harestock should be 'yellow' or amongst the 'greens' to be included, given their poor scores in some areas and their size and expected growth?	We incorporated both Morestead and Harestock in the ODA and subsequent stages of the DWMP.	119
20/05/2021	Correspondence	Test & Itchen	Cheriton and Old Alresford	A number of local groups that focus on chalk stream conservation in the upper Test and Itchen have for a long time discussed the potential benefits of first time sewerage to tackle inputs of P from septic tanks. Whilst these are in theory diffuse, when they are concentrated in small villages the feeling is that they will have a combined effect on measurable P in the chalk streams and chronic effects on ecological quality. Places such as Cheriton and Old Alresford are a cause of concern for these chalk stream enthusiasts. These groups would welcome engagement with SW.	We would be keen to discuss the potential for First Time Sewerage Schemes with interested local groups. We have to be able to justify the costs against the benefits of the schemes but in principle would welcome discussions.	265
20/05/2021	Workshop 2	Test & Itchen	St Mary's Bourne	When assessing growth, the impact of growth in sub-catchment needs to be considered. For example, growth in St Mary Bourne may impact on the network at St Mary Bourne but would be insignificant on the whole network.	Thank you for flagging the issue of growth to us around St Mary's Bourne subcatchment. We have identified an investment need to increase the capacity of the WTWs (BAST.PW02.3).	266
20/05/2021	Workshop 2	Test & Itchen	Test & Itchen	HCC is putting together catchment plans identifying priority flooding areas. Similar locations may have different names in the DWMP so it would be useful to take this list off line with a map location list to compare with our catchment plan priority areas.	We will share this list and any other relevant information that may be helpful.	267
20/05/2021	Workshop 2	Test & Itchen	Barton Stacey	There are elevated levels of nitrate in groundwater impacting on water supply. A contributing factor to this is non-mains drainage. Knowledge sharing regarding small-scale nitrate removal technology is needed.	We agree and welcome any opportunity for information sharing between ourselves and knowledgeable stakeholders and external organisations.	268
20/05/2021	Workshop 2	Test & Itchen	Barton Stacey	First time sewer connections is a recurring item on the agenda of local community and environmental interest groups. It is a significant concern to them and SW is encouraged to engage with them.	We welcome any opportunity to work in partnership with local community and environmental interest groups and will engage with them to tackle these concerns.	269
20/05/2021	Workshop 2	Test & Itchen	Barton Stacey	Mitigating the impact of discharges on receiving waters through river restoration would receive significant support as this can achieve multiple benefits including improving ecological resilience and water quality.	We are actively looking to work with partner organisation to locate suitables places for SuDS schemes to hold back flows from our sewers and help improve the quality of receiving waters. We hope organisations will help identify such areas where we can work in partnerships.	270
20/05/2021	Workshop 2	Test & Itchen	Barton Stacey	An investigation into Bourne flooding and the impacts on properties would provide an opportunity for joint working.	We have identified a number of investment needs to minimise flooding in the catchment and hope to work in partnerships to develop and implement these.	271
20/05/2021	Workshop 2	Test & Itchen	Barton Stacey	An investigation will be required into the hydraulic models in order to accurately quantify baseflow into the network, as the identification of 0% input is clearly incorrect.	We have included an option for this in the ODA (ref BAST.OT01.5)	272
20/05/2021	Workshop 2	Test & Itchen	Millbrook	Other stakeholders need to be involved in nutrient issues. For example, the EA review of consents feeding into the future WINEP.	We agree and have included an option addressing this in the ODA (ref MILL.PW02.3)	273
20/05/2021	Workshop 2	Test & Itchen	Millbrook	Understand whether addressing customer behaviours or improving the sewer network is the most effective way to tackle blockages.	We believe this is an effective way to tackle this issue and have included an option addressing this in the ODA (ref MILL.SC03.1)	274

Date	Source	River Basin	Specific location	Topic	Response	Ref:
20/05/2021	Workshop 2	Test & Itchen	Barton Stacey, Ivy Down Lane, North Waltham, Overton and Whitchurch	Barton Stacey, Ivy Down Lane Oakley, North Waltham, Overton and Whitchurch, all discharge into the Rivers Test and Itchen and ultimately into the Solent. All new development is required to nutrient neutral, therefore all these WTWs should be identified as Band 2 for PO11 to be taken forward at the next stage given the impact that this is having on new development. This also ties in with the Environment Agency work on the Review of Permit	We have identified our priority catchments based on a number of different factors that includes the risk to nutrient neutrality. Our methodology for assessing the banding is available on our website. We are proposing to undertake nutrient surveys within the river basin as part of the DWMP and it will include all wastewater systems that discharge into or are hydrologicall connected to designated water bodies	275
20/05/2021	Workshop 2	Test & Itchen	lvy Down Lane, North Waltham, Overton, Whitchurch, Oakley and Woodgarston	Ivy Down Lane Oakley, North Waltham, Overton and Whitchurch all discharge into the River Test Chalk groundwater body, which provides a significant proportion of the base flow to the river network. This groundwater body has been assessed as 'poor' in the latest WFD (chemical classification) and is a Drinking Water Protected Area. Safeguard zones have been designated at Overton, Whitchurch and Woodgarston, due to elevated nitrate concentrations. There are groundwater Source Protection Zones at North Waltham, Oakley, Overton, Whitchurch. Groundwater pollution should be a much higher priority with improvements through the Investment Strategy.	We have considered Groundwater Pollution as part of the DWMP process and have prioritised initial investment at protecting Source Protection Zones. The investment needs are detailed on our website.	276
20/05/2021	Workshop 2	Test & Itchen	Regional	The Highway Authority needs to be involved in addressing road run off for the DWMP process.	We agree and will be working with Highways Authorities to develop schemes to manage road run off as the DWMP is progressed.	277
20/05/2021	Workshop 2	Test & Itchen	Regional	The carbon costs of unnecessarily pumping clean water around the network needs to be incorporated into the DWMP.	We agree. Carbon costs / accounting will be incorporated into the next cycle of the DWMP.	278
20/05/2021	Workshop 2	Test & Itchen	Regional	Spill events should be expressed as the number of days rather than the number of events as one event can last for a long duration.	We tend to think that although counting the number and duration of events is valuable and is the traditional way of measuring compliance, measuring the impact of spills in terms of environmental harm is more important.	279
20/05/2021	Workshop 2	Test & Itchen	Barton Stacey	Should the strategy be sustain, rather than improve, if the main requirement is to line the sewers.	Potentially. We may have expressed this as 'enhanced maintenance' in the investment needs tables.	280
20/05/2021	Workshop 2	Test & Itchen	Barton Stacey and Fullerton	Investigate opportunities to create wetlands, both at Barton Stacey and Fullerton, which could provide multiple benefits for managing nitrate, reducing surface water runoff, carbon reduction and biodiversity gain.	Collaborative and sustainable solutions are the preferred options in the DWMP.	281
20/05/2021	Workshop 2	Test & Itchen	Millbrook	As growth and housing targets increase and become more certain over the next 25 years, the risk bands may increase.	They may. However, we hope that the implementation of the DWMP will decrease the risks over the next 25 years through proactive management rather than the risks continuing to rise.	282
20/05/2021	Workshop 2	Test & Itchen	Millbrook	More work is required on 'unknowns' for nutrients – for example, are nutrients derived from a diffuse or point source?	We will be undertaking nutrient assessments as part of the DWMP which will identify the sources of nutrients. Once this is completed it will help all parties come together to develop and agree nutrient budgets.	283
20/05/2021	Workshop 2	Test & Itchen	Millbrook	Retrofitting surface water controls such as SuDS, swales and rain gardens will be challenging but effective if technically feasible.	Yes, we recognise the challenges. We hope, however, that by working in partnerships, we will collectively be able to identify suitable locations for managing surface water.	284
20/05/2021	Workshop 2	Test & Itchen	Millbrook	The review of consents by the EA could lead to both treatment improvements and wastewater transfers which may be to new treatment locations and / or new discharge points, for example, long sea outfalls.	We will work with the EA to identify potential schemes and will ensure we remain compliant with our permits.	285

Date	Source	River Basin	Specific location	Topic	Response	Ref:
20/05/2021	Workshop 2	Test & Itchen	Millbrook	Mitigation measures for the receptors, natural capital and bio- engineering options such as shellfish beds and encouraging kelp beds which can act as nutrient sinks for point source and diffuse pollution sources should be considered.	We are pursuing sustainable and natural solutions and mitigations as part of the DWMP.	286
20/05/2021	Workshop 2	Test & Itchen	Millbrook	Reducing the impact on properties from internal flooding is low cost and, as there have been a number of internal sewer flooding incidents due to blockages, this should be progressed. Targeted work on blockages could help to reduce the incidents.	We have identified an investment need for targeted customer education in the Millbrook system (MILL.SC03.1) as well as an enhanced sewer jetting programme to prevent blockages (MILL.PW01.12), the main cause of internal sewer flooding.	287
21/05/2021	Correspondence	Test & Itchen	Saddlers Close, Sutton Scotney	It seems odd that Saddlers Close, Sutton Scotney has over 1000% growth – is the catchment area being extended or do you know something we don't about future growth?!	This catchment is currently not one of our priority catchments. It is a very small catchment where even a small development could mean an increase of 1000%. The issue of growth is considered as part of the DWMP planning and we will look at this further as part of the next cycle of the DWMP.	291
21/05/2021	Correspondence	Test & Itchen	Morestead and Harestock	Morestead and Harestock should be 'yellow' or amongst the 'greens' to be included, given their poor scores in some areas and their size and expected growth?	Both systems have been progressed through the ODA.	292
26/05/2021	Correspondence	Test & Itchen	Whitchurch	Basingstoke and Deane Borough Council is currently reviewing its Local Plan. At this stage, the spatial strategy and distribution of growth in terms of housing numbers is not known for specific settlements/WTW catchments. However, potential growth options up until 2040 have been considered and there is the potential for a considerably larger increase than 14% of 2020 population (by 2035) for Whitchurch WTW due to a new settlement being promoted within the catchment of this WTW – this in itself could be in the region of some 2000 - 2500 houses. The council's draft Plan is due to be published in Spring 2022 which will set out a strategic spatial strategy. It is suggested that further consideration will need to be given to growth levels detailed in that Plan, particularly with regards to Whitchurch WTW and you may wish to be aware of the potential for higher growth at this WTW at this stage.	Thank you for updating us on this scale of proposed development. We will keep a watching brief on how the proposal progresses and plan the necessary infrastructure to meet the need.	
26/05/2021	Correspondence	Test & Itchen	Ashmansworth and Hannington	It is acknowledged that Ashmansworth and Hannington WTWs are not to be progressed through this process in terms of priority or investment. They serve a small population and further development is unlikely here.	Thank you for understanding the position. We will, as the cycles of DWMP develop, take smaller and less significant systems through the process.	296
26/05/2021	Correspondence	Test & Itchen	Barton Stacey, lvy Down Lane Oakley, North Waltham, Overton & Whitchurch	The WTW in Basingstoke and Deane Borough all discharge into the River Test and Itchen and ultimately into the Solent. All new development in this catchment is required to be nutrient neutral, and we therefore maintain that all these WwTW should be identified as 2 (very significant) for PO11, in order that they are taken forward for consideration at the next stage. It is recognised that this also ties in with the Environment Agency work on the Review of Permits, but it is hoped that these WTW should be identified as 'improve' in the proposed investment strategy so that they are progressed through the first round of DWMPs, given the impact that this is having on new development.	Ivy Down Lane, North Waltham and Overton were not prioritised for progression in the first cycle of the DWMP. They will be incorporated when resources allow. However, all wastewater systems that discharge into or which are hydrologically connected to the Solent and Harbours will be included in the nutrients study and so will be taken into account.	297
26/05/2021	Correspondence	Test & Itchen	Oakley, Overton, North Waltham and Whitchurch	We would like to continue to be involved in this process with regards to the WTWs at which fall within our borough, but in the context of limited resources available.	We will continue to collaborate with all partners that have been working with us throughout the development of the DWMP and any relevant others as advised.	298

Date	Source	River Basin	Specific location	Topic	Response	Ref:
01/06/2021	Correspondence	Test & Itchen	Chickenhall, Kings Somborne, Romsey and Stockbridge	In general we agree with the prioritisation of the catchments – though we would suggest for surface water issues, that Chickenhall, Kings Somborne, Romsey, Stockbridge could be amber – or at least at the top of the green pile!	All four wastewater systems were progressed to the OA stage	322
04/06/2021	Correspondence	Test & Itchen	East Chollerton, Monxton, Amport and the Pilhill Brook	Recent drainage problems in East Cholterton, Monxton and Amport (caused by an excess of clean groundwater entering the foul sewer network and private lateral drains) has resulted in tankering of dilute sewage or pumping it to nearby watercourses, including the Pillhill Brook (headwaters of the River Test) via settlement and screening tanks. We do not yet understand how this is impacting the natural environment, it is likely nutrient rich effluent is detrimental to the health of the river or Solent nitrate issue. Further investigation and actions are required to prevent the discharge of dilute sewage to the river in the	You have raised an important issue and will take this into consideration in cycle 2 of the DWMP as is is not one of the catchments we have progressed in this cycle.	330
04/06/2021	Correspondence	Test & Itchen	Redlynch Sewer and West Wellow	Storm overflow performance in the Redlynch catchment poses a 'very significant risk'. With West Wellow sharing similar issues and being relatively close together, could it be feasible to investigate these two catchments together?	Neither of these catchments made the final prioritisation list for the first round of the DWMP as others had more significant issues. They will be progressed when resources allow.	331
04/06/2021	Correspondence	Test & Itchen	Fullerton	Fullerton is in the green category and Pollution risk has been identified as a 'very significant'. The TICP have raised concerns around this site and the potential impact this is having on the ecology of the River Test. Ecological survey data collected by local Angling clubs above and below the Fullerton WWTW indicate potential issues with organic pollution	There are a number of investment options identified for Fullerton that should reduce the pollution risk.	332
04/06/2021	Correspondence	Test & Itchen	Barton Stacey	Wessex Rivers Trust can help identify options which 'Mitigate impacts on Water Quality' (e.g. river enhancement work), as outlined for Barton Stacey during the workshop breakout session and are currently delivering habitat compensation work on the River Test on behalf of Southern Water as part of the Section 20 agreement. We can also support with the identification of river enhancements and wider nature based solutions to address the risks at non-tidal sewer catchments.	We will continue to collaborate with all partners that have been working with us throughout the development of the DWMP and any relevant others as advised.	333
11/08/2021	ODA meeting	Test & Itchen	Regional	There is a legal requirement as set out in the Habitat Regulations to reduce the contribution of nutrient arriving at habitat site that is deemed to be deteriorating or are under threat.	We will be conducting a nutrient study for all wastewater systems that are hydrauligically connected with designated Habitat sites.	411
16/08/2021	ODA meeting	Test & Itchen	St Mary's Bourne WPS and Barton Stacey	The system is located on a chalk aquifer and most of it lies below groundwater levels which can fluctuate as much as 10m to 20m below the surface. Groundwater flooding affects a number of properties in the catchment, particularly around St. Mary Bourne WPS, having NRV (Non-Return Valves) to prevent them from flooding. The contribution of sewer exfiltration to groundwater quality is not understood.	We will investigate the extent of sewer exfiltration in cycle 2 of the DWMP.	412
16/08/2021	ODA meeting	Test & Itchen	St Mary's Bourne WPS and Barton Stacey	Some of the public sewers have been lined in the past, but private laterals can have significant contribution to flow. SW will need to work with the Local Authority to address the issue of infiltration through private laterals.	We agree and will explore this further in cycle 2 of the DWMP.	413

Date	Source	River Basin	Specific location	Topic	Response	Ref:
16/08/2021	ODA meeting	Test & Itchen	Barton Stacey	The Habitat Condition Assessment indicated that the receiving habitat has a total Nitrogen and P requirement. There is a legal requirement as set out in the Habitat Regulations to reduce the contribution of nutrient arriving at habitat site that is deemed to be deteriorating or are under threat.	Thank you for your comment regarding the Habitat Condition Assessment. Assessing the risk to Nutrient Neutrality is one of our Planning Objectives as part of the DWMP and we will be undertaking a nutrient study and investigation within the river basin.	414
6/08/2021	ODA meeting	Test & Itchen	Barton Stacey WTW	Sutton Scotney motor services station is currently tankered but there are plans to connect the flow to the wastewater system. The new connection will add pressure on the compliance of the works.	We have included an option addressing this in the ODA (ref BAST.PW02.3)	415
16/08/2021	ODA meeting	Test & Itchen	Barton Stacey WPSs	Some trade effluents are causing chlorine problems at the works. The effect of H2S (Hydrogen sulphide) on the pumping stations and the sewers needs investigating.	We have identified an option to address this (ref: BAST.OT01.7)	416
16/08/2021	ODA meeting	Test & Itchen	Regional	SW should work with the Local Authorities to address the issue of infiltration through private laterals.	We will continue to collaborate with all relevant authorities on resolving issues with private laterals.	417
16/08/2021	ODA meeting	Test & Itchen	Regional	The effect of H2S (Hydrogen sulphide) on the pumping stations and the sewers needs investigating.	The impact of H2S is being taken into account as part of the Sewer Collapse objective.	418
02/09/2021	ODA meeting	Test & Itchen	Portswood and Millbrook			489
02/09/2021	ODA meeting	Test & Itchen	Portswood and Millbrook	SW and Council flooding locations don't correspond – potentially both are missing some data. Flood maps and other data need to be combined as evidence shared in the meeting suggested both have blind spots the others' data identified. Data sharing will allow a greater understanding of the smaller drainage sub-catchments within these larger systems.	We agree and have included an option addressing this in the ODA (ref POOD.OT01.1)	490
02/09/2021	ODA meeting	Test & Itchen	Portswood and Millbrook	Larger industrial units could be targeted for SuDS and other storage schemes. For example, the Tesco estate could drain to tanks rather than sewer network. Large lorry parks in the docklands area west of Millbrook has space for storm storage.	We will work with the council to identify appropriate locations for SuDS.	491
02/09/2021	ODA meeting	Test & Itchen	Portswood	A rain garden programme tackling roof runoff to help solve multiple objectives is an option.	We will work with the council to identify appropriate locations for SuDS.	492
02/09/2021	ODA meeting	Test & Itchen	Portswood	The western half of Portswood has a strong student presence and blockages are causing some 64% of the pollutions. Options are for an education campaign with messages to students about what can and can't be put into the sewer system and to introduce jetting schemes.	We have included an option addressing this in the ODA (ref MILL.SC03.1)	493
02/09/2021	ODA meeting	Test & Itchen	Portswood	Bursleden WTW was converted to a WPS to pump wastewater to Peel Common as it had a nitrate stripping plant. A similar proposal for Portswood could be considered turning it into a WPS and pumping flow to Chickenhall Eastleigh. However, there are environmental concerns as Chickenhall is hydrologically connected to a freshwater SAC.	Thank you for an interesting proposal. We will look at this further during the next cycle on the DWMP.	494
02/09/2021	ODA meeting	Test & Itchen	Portswood	Portswood needs nitrogen removal, which should be included at any works that discharges into sensitive waters. Developers cannot be asked to pay for a new nitrogen removal plant as it is illegal under state aid funding. There could be a focus on reed beds up river to offset discharges by buying farmland to offset nitrate entering the system.	We have included an option addressing this in the ODA (ref POOD.PW02.2)	495

Date	Source	River Basin	Specific location	Topic	Response	Ref:
02/09/2021	ODA meeting	Test & Itchen	Portswood	There is potential to work in partnership with landowners such as the defence estates to provide land necessary for upstream interventions for surface water attenuation and natural nutrient removal.	We have included an option addressing this in the ODA (ref POOD.PW01.4)	496
02/09/2021	ODA meeting	Test & Itchen	North Baddesley and Mayflower Park, Millbrook	Surface water removal and attenuation are potential options at North Baddesley and Mayflower Park.	We have included options addressing this in the ODA (ref MILL.SC01.4 and MILL.SC01.6)	497
02/09/2021	ODA meeting	Test & Itchen	Blechynden Terrace, Millbrook, CSO	Blechynden Terrace CSO – needs a shellfish scheme and potentially additional storage.	We have included an option addressing this in the ODA (ref MILL.PW01.25)	498
02/09/2021	ODA meeting	Test & Itchen	Millbrook WTW	Millbrook has a nitrogen removal plant but there are Phosphorus issues with new developments that need addressing. A long term aim to have UV at Millbrook and finer screens.	We have included an option addressing this in the ODA (ref MILL.PW02.2)	499
02/09/2021	ODA meeting	Test & Itchen	Millbrook WTW	There is reduced flow capacity at the WTW, due to siltation of the sewer and flooding. Highways are high contributors.	We have included an option to enhance the sewer jetting to clear the sewers of siltation (ref: MILL.PW01.12)	500
02/09/2021	ODA meeting	Test & Itchen	Portswood	Plastic nurdles (microplastics) are of concern due to a production site in the north of the Portswood catchment. Screening is needed to ensure no plastics leave the works through discharges and surface water sewers need protecting in the same way to ensure microplastics are not discharged into the natural environment.	Microplastics and management of other hazardous substances will form part of cycle 2 of the DWMP.	501
02/09/2021	ODA meeting	Test & Itchen	Portswood	A nitrogen removal plant may be required.	We are working with the EA to understand any changes in permits that may be needed and, by association, any new equipment.	502
02/09/2021	ODA meeting	Test & Itchen	Millbrook Road	Millbrook Road has surface water flooding and a model is need for this location.	We will be looking at new modelling requiremets as we progress the DWMP / for cycle 2.	503
02/09/2021	ODA meeting	Test & Itchen	Portswood and Millbrook	Neither works have UV treatment and there is no available space for reed beds to help address nutrient issues.	We are working with the EA to understand any changes in permits that may be needed and, by association, any new equipment.	504
07/09/2021	ODA meeting	Test & Itchen	Woolston	There are issues with large quantities of gravel found in the storage tanks and the sewer system, so a programme of gravel removal is needed catchment wide.	We have included options addressing this in the ODA (ref WOOL.PW01.15 and WOOL.PW01.20)	532
07/09/2021	ODA meeting	Test & Itchen	Woolston	The works has P and N permits and is a BNR (Biological Nutrient Removal) plant but an investigation to see if there are any high spillers to freshwaters is needed.	As part of the DWMP process we have identified high spillers within our catchments. We have developed a number of solutions to manage these risks.	533
07/09/2021	ODA meeting	Test & Itchen	Woolston	There are a few flooding clusters but it is generally fairly widespread across the catchment. However, SW data on flooding locations doesn't match with that held by Southampton CC. This information should be shared so both parties are able to form a more complete picture of flooding in the catchment.	We agree and have included an option addressing this in the ODA (ref WOOL.OT01.8)	534
07/09/2021	ODA meeting	Test & Itchen	Woolston	Surface water flooding issues seem to the main concern. Increasing the size of surface water sewers and the capacity of the sewer systems will help to reduce flooding from surface water in the foul system.	We agree. Identifing opportunites for separation of surface and rainwater is a key priority for the DWMP rather than increasing the size and capacity of the sewers. However, it is likely we will need a mix of solutions to address the issues.	535
07/09/2021	ODA meeting	Test & Itchen	Woolston	There are lots of ring roads around the area with outfalls to tidal areas. Tidal locking is an issue, particularly along the west of the catchment which follows the route of the River Itchen. The impact of increasing the discharges into the watercourses should be investigated.	We will investigate this in cycle 2 of the DWMP	536

Date	Source	River Basin	Specific location	Topic	Response	Ref:
07/09/2021	ODA meeting	Test & Itchen	Woolston	There are many potential sites for removal of impermeable areas through SuDS around the catchment including school ground car parks, retail parks and blocks of flats to the North of the catchment along the A3204. All these can provide opportunities for capturing rain water from roofs in rain gardens or water butts, removing impermeable areas associated with car parks, green areas for SuDS or hard engineering options such as online/offline storage tanks.	We have included options addressing this in the ODA (ref WOOL.SC01.3 to WOOL.SC01.11 and WOOL.PW02.2 to WOOL.PW02.10)	537
07/09/2021	ODA meeting	Test & Itchen	Woolston	The WTW is brand new and state of the art so there isn't much room for further improvement. The old works is now used for storage. Installation of storage tanks before the CSOs is needed to reduce spills.	We will consider the options as we progress the DWMP.	538
07/09/2021	ODA meeting	Test & Itchen	Woolston	The likelihood of misconnections is high. An investigation into misconnections is needed, as is an awareness programme to prevent future misconnections.	Yes - we agree and will consider who we can work with to raise awareness on misconnections as we progress the DWMP	539
07/09/2021	ODA meeting	Test & Itchen	Woolston	Blockages are catchment wide so catchment-wide strategy on blockages is needed. There is already good customer engagement on blockages, but this should be enhanced. Along with this is an increased programmed of sewer jetting to clear any formed blockages.	We have included several options to enhance the sewer jetting regime across the catchment.	540
16/09/2021	ODA meeting	Test & Itchen	Whitchurch	There is a lot of surface water in the system. Identify whether the playing fields at Testbourne School/pitch at Whitchurch FC are contributing.	We will investigate whether the playing fields at Testbourne School/pitch at Whitchurch FC are contributing to surface water in the system in cycle 2 of DWMP	598
16/09/2021	ODA meeting	Test & Itchen	Whitchurch	The Whitchurch works is a 'treat all' site and has 4 tanks. It seems to discharge via a soakaway but this needs to be verified.	We will verify where treatment works discharges to.	599
16/09/2021	ODA meeting	Test & Itchen	Whitchurch	Flooding incidents seem to align with course of the River Test. The sewer crosses the river along Winchester Street by Whitchurch Silk Mill.	We will look into this as we progress the DWMP	600
16/09/2021	ODA meeting	Test & Itchen	River Test and Southampton Water	It is a highly nutrient sensitive area for the River Test and Southampton Water.	We have identified an investment for a nutrients study encomapssing the harbours and coasts and the rivers that are hydraulogically connected to them. We will work with all relevant partners to investigate nutrients and develop a nutrient budget as part of the DWMP.	601
30/09/2021	ODA meeting	Test & Itchen	Chickenhall Eastleigh	Road runoff into sewers, with a contribution from permeable areas, is very high. We need to understand the pathway of this runoff and develop interventions using natural lood management (NFM), such as reed beds, to slow flows. However, the Southampton airport approach constricts development in the area and the Airport Authority is likely to object to initiatives that will increase bird numbers/risk of bird strikes.	Thank you for highlighting the design constraints within this area. We would love to work with you in the future to develop suitable flood management solutions further.	665
30/09/2021	ODA meeting	Test & Itchen	Otterbourne	The Otterbourne area has groundwater vulnerability and there have been pollution events so the issues need to be investigated with the EA. Much of the area is culverted. There is an EA river restoration scheme in patches, but there is scope to do much more to create wetlands – including bringing this scheme forward.	We will work with the EA to see if the river restoration scheme can be brought forward.	666

Date	Source	River Basin	Specific location	Topic	Response	Ref:
30/09/2021	ODA meeting	Test & Itchen	Riverside Park, Lower Itchen	Lots of people use the area on the lower Itchen at Riverside Park as a green/blue recreation area. The potential to designate this as an inland bathing water by working with Southampton CC and EA should be considered. The wastewater treatment works currently has a tight permit, but does not have a UV treatment plant. Tighter bacteria limits may need to be included in the EA's WINEP Programme to achieve improvements in water quality.	We are very open to working with the community and relvant organisations to find ways to make this a reality.	667
30/09/2021	ODA meeting	Test & Itchen	Chandlers Ford	Chandlers Ford has groundwater issues, and the combined system in the Hiltingbury area reacts very quickly to rainfall. Investigate to identify causes.	We will investigate to identify causes of groundwater and combined system issues.	668
30/09/2021	ODA meeting	Test & Itchen	Chestnut Avenue, Eastleigh	Chestnut Avenue is a blockage hotspot with a failure at the CSO pumping station. Consider an enhanced FOG and Unflushables awareness programme and the potential for attenuation schemes by the colleges on Chestnut Avenue.	We have included an option addressing this in the ODA (ref CHEA.SC03.1)	669
30/09/2021	ODA meeting	Test & Itchen	Fair Oak Road and meadows	Fair Oak Road and meadows are a possible area for attenuation of flows.	We will take this into consideration while progressing the DWMP.	670
30/09/2021	ODA meeting	Test & Itchen	Winchester Road and Fair Oak	There is a lot of housing development already in situ and another 2,500 homes are planned on the floodplain and greenfield site. The long term effects on flooding must be taken into account as storm water runoff comes down the brook and accumulates on the crossroads causing flooding. Potential options are a) for upstream attenuation to improve network, b) improve public education to stop blockages and c) to use new developments to provide opportunities for SuDS.	Thank you for your recommendations regarding flood management. We have been working closely with our growth team throughout the DWMP process to properly consider growth within the catchment. We would love to work with you to develop these solutions further as we progress with the DWMP.	671
30/09/2021	ODA meeting	Test & Itchen	Fullerton	The catchment is rural, the groundwater table is very high and there are winterbournes when it is. A high percentage of runoff is from highways and local residential roads. Surface water separation may be helpful, but the main issue is keeping groundwater out of the system. The valleys are on chalk so although it may be challenging, the potential of natural flood management could be explored.	We will explore potential solutions with relevant organisations as the DWMP is progressed.	672
30/09/2021	ODA meeting	Test & Itchen	Thruxton	The area near Thruxton racecourse suffers from groundwater infiltration. Electro scanning of the sewer is needed to find where the leaks are and then sealing these is proposed.	We have included an option addressing this in the ODA (ref FULL.PW01.5)	673
30/09/2021	ODA meeting	Test & Itchen	Mullins Pond and the Fullerton WTW	Pollutions are due to over-pumping and require tankering the wastewater away because of high groundwater overloading the system. UV treatment is being used at Mullins Pond to disinfect area. Foaming at the works could be due to chemical dosing or could be hydraulic issues. Ecologically it's not sustainable to continue over-pumping as there is a cumulative negative effect over time. There are private laterals adding to this problem. Improvements in the infrastructure are needed	There are a wide range of interconnected issues to be taken into account to try and develop an effective solution. We will take your comments forward as we progress the designs and further develop the DWMP.	674
30/09/2021	ODA meeting	Test & Itchen	Harestock	Hampshire CC is investigating a groundwater / flood alleviation scheme. Groundwater flooding occurs roughly every 10 years and conveyance routes are gradually being lost. One of the routes traditionally goes through the site of the treatment works, causing pollution. There is a partnership opportunity between SWS, EA, and HCC to co-fund a flood alleviation scheme on the conveyance routes.	We will explore the potential to develop a flood alleviation scheme with the EA and HCC.	675

Date	Source	River Basin	Specific location	Topic	Response	Ref:
30/09/2021	ODA meeting	Test & Itchen	Horton Heath, Chickenhall	A pipeline is being laid for the Horton Heath Development of some 2.500 homes to send wastewater to a WTW much further away. Chickenhall does not have the technology available to deal with the nutrient issues for a development of this size.	We will take this into consideration as we progress the DWMP.	676
30/09/2021	ODA meeting	Test & Itchen	Chickenhall Eastleigh	SW is collaborating with Eastleigh BC on innovative ways to reduce water use, helping to reduce the volumes of wastewater in the sewer network and potentially preventing flooding.	Thank you for the update. We want and need to work in partnership on all these issues so knowing partnership are already taking place is very helpful.	677
30/09/2021	ODA meeting	Test & Itchen	Fullerton	There are an increasing number of local developments – residential and mixed use. Future development sites must incorporate SuDS.	Our aim is to work with all the Councils on this issue to ensure new developments are not allowed to discharge surface water into the sewer systems.	678
30/09/2021	ODA meeting	Test & Itchen	River Anton, Fullerton	There is a restoration scheme for the River Anton – a partnership between the Test Valley BC, EA, Hampshire CC, and the Hampshire and loW Wildlife Trust.	This is good to know. We will take this into consideration as we progress the DWMP.	679
30/09/2021	ODA meeting	Test & Itchen	Fullerton	The outfall is a noted 'feature' in the area and is closely watched for spills.	Thank you. We will be addressing spills from outfalls as part of the DWMP and have already established the Storm Overflows Task Force to test out a range of solutions to see which works best in different locations.	680
30/09/2021	ODA meeting	Test & Itchen	Fullerton	The Fullerton area of the Test Valley could benefit from wetland treatment before effluent is discharged to the watercourse, however, a study on whether wetlands are a good option for final treatment determined that Fullerton is a not a good pick, due to the size of area needed for this to be feasible for a small flow.	We will take this into account as we progress the DWMP for Fullerton.	681
30/09/2021	ODA meeting	Test & Itchen	Avington Park, Harestock	Avington Park is not yet connected, but will be soon which will help with nutrient issues as this currently isn't treated to SWS permit standards.	Thank you. That is helpful to know as we progress the DWMP.	682
14/10/2021	ODA meeting	Test & Itchen	Morestead Road, Winchester	There is no change planned to the permit levels for Nitrate or Phosphate, so nutrient issues need to be managed now, not later, possibly through reed beds at the treatment works.	We agree and have included an option addressing this in the ODA (ref MORE.OT01.3)	710
14/10/2021	ODA meeting	Test & Itchen	Winchester	Flooding in Winchester is complex. There are high groundwater levels surrounding the Itchen and the historic city is situated in a bowl, with rainfall reactive flooding congregating in its centre. Surface water contributes to this with roof runoff from some of the older buildings discharging directly onto the street. Misconnections need to be identified and resolved	We will investigate misconnections in Winchester in cycle 2 of the DWMP.	711
14/10/2021	ODA meeting	Test & Itchen	Winchester Leisure Centre / college / university and Winall industrial Estate	The flooding area follows the line of the sewer from the South West connecting the prison, the hospital, and the university before joining to the city centre. The leisure centre was identified as a potential site with a large roof area for a take-off system as well the college/universities, and the industrial estate at Winall (although this needs to be investigated to identify if it is connected to the system).	We have included an option addressing this in the ODA (ref MORE.SC01.3)	712
4/10/2021	ODA meeting	Test & Itchen	Winchester City Centre	There is little scope to undertake SuDS in much of the catchment, so property level solutions in the city centre are needed as well as other options such as using planters, especially in the high street, and the potential to alter road designs to alter flow paths. However, installing storage tanks may be the only solution but there are possibilities for some green measures to slow flows or divert flows outside of the catchment.	We will investigate this further in cycle 2 of the DWMP. Implementing a series of small solutions mixed with storage tanks may be the best option in this location.	713

Date	Source	River Basin	Specific location	Topic	Response	Ref:
14/10/2021	ODA meeting	Test & Itchen	Winchester	Investigation of the surface water infrastructure is needed to understand if it is performing as expected and the storm flooding needs to be modelled.	The surface water infrastructure in Winchester can be investigated in cycle 2 of DWMP. Improvements to data capturing can be considered from now to allow optimal storm flooding modelling.	714
14/10/2021	ODA meeting	Test & Itchen	Winchester	A targeted campaign to identify where blockages are occurring is needed focusing on the high street where there is a prevalence of food outlets/large tourist areas. There is also a large student population to target with education on FOG and unflushables.	We agree and have included an option addressing this in the ODA (ref MORE.SC03.1)	715
14/10/2021	ODA meeting	Test & Itchen	Romsey	There are flood alleviation schemes being constructed around Romsey. There is potential to work in partnership to create storage and slow the flows of the surface water.	We will explore the potential to work in partnership with the relevant organisations.	716
14/10/2021	ODA meeting	Test & Itchen	Romsey	Growth could increase compliance risks for nutrient neutrality and DWF, so a tightening of the permits may be needed.	We will work with the EA to discuss permits once we know what growth and development is planned.	717
14/10/2021	ODA meeting	Test & Itchen	Kings Somborne	The Test Valley Community plan includes a growth development of 40 houses with the potential for SuDS schemes.	We will explore the potential to work in partnership with the relevant organisations to identify where SuDS could be implemented.	718
14/10/2021	ODA meeting	Test & Itchen	Kings Somborne	There are 2 at risk habitat sites, with some spills identifying elevated Nitrogen levels affecting nutrient neutrality in the catchment. Interventions such as reed beds at the discharge site could mitigate the nutrient neutrality issues.	We agree and have included an option addressing this in the ODA (ref KISO.OT01.1)	719
14/10/2021	ODA meeting	Test & Itchen	Stockbridge	The storm tanks discharge throughout most of the winter months as they are inundated with flows. An option proposed was to pump flows to other catchments. Morestead Road Winchester would be challenging as it is on the other side of the river and would require significant pumping and Chickenhall Eastleigh is probably too far away.	We will explore this further while developing the ODA.	720
14/10/2021	ODA meeting	Test & Itchen	Romsey	The water table is very high and groundwater is potentially infiltrating into the sewers. This needs to be investigated and measures taken to prevent infiltration. Some homes' cellars are forced to pump out flood water directly onto road – contributing to surface water flooding. Highways pump to the canal or to soakaways.	We are investigating sewer condition in all areas identified as subject to groundwater infiltration.	721
14/10/2021	ODA meeting	Test & Itchen	Timsbury, Romsey	There are groundwater flooding issues in the Timsbury area which is also an SPZ.	We are investigating all groundwater flooding issues that overlay an SPZ as part of the DWMP.	722
14/10/2021	ODA meeting	Test & Itchen	Timsbury, Romsey	Future use of the groundwater to supplement water supplies to the supply works at Timsbury could be investigated.	We are working alongside the WRMP programme to look into the potential of such proposals.	723
14/10/2021	ODA meeting	Test & Itchen	Romsey	There is lots of new development planned providing an opportunity for natural flood management measures. Many are smaller developments of 10 houses and there is a large development of some 1,300 homes to the south of the town not yet approved. The latest update to 'sewers for adoption' guidance includes a proviso for SW to adopt SuDS schemes and have greater input in the drainage design. Water efficient devices need to be incorporated in these new developments.	We are pursuing SuDS and NFM schemes wherever feasible as part of the DWMP.	724
14/10/2021	ODA meeting	Test & Itchen	River Test, Romsey	There is potential to designate an inland bathing water on the Test which would provide better protection of the river through UV treatment.	Designating inland bathing water is something we want to progress as part of the WINEP enhancement special case scheme.	725

Date	Source	River Basin	Specific location	Topic	Response	Ref:
14/10/2021	ODA meeting	Test & Itchen	Kings Somborne	High groundwater causes problems. There is an updated infiltration reduction plan submitted to the EA. A lot of the sewers in the catchment are below the groundwater levels when these are high.	More investigations and modelling are needed to understand the relationship between high groundwater and infiltration. As lower level sewers are replaced, it tends to increase infiltration into the higher level sewers leading to greater infiltration overall. We are looking into this to find an optimal solution.	726
14/10/2021	ODA meeting	Test & Itchen	Kings Somborne	There is a noted problem with ditch maintenance in the catchment.		727
14/10/2021	ODA meeting	Test & Itchen	Stockbridge WTW	The Stockbridge works has exceeded its DWF permit for the past 7 years. If the DWF is breached in 3 of the next 5 years, it will be deemed a failed site. A new permit is being issued.	We will comply with the new permit when issued.	728
14/10/2021	ODA meeting	Test & Itchen	Stockbridge WTW	There are sensitive habitat sites nearby, so achieving Nutrient Neutrality is vital.	This is taken into account in the DWMP.	729
14/10/2021	ODA meeting	Test & Itchen	Stockbridge	There are blockages mainly caused by restaurants in the high street. An enhanced jetting programme is needed to clear these, if the source of the blockages cannot be addressed.	We have identified areas for an enhanced jetting programme.	730