

ARUN DISTRICT COUNCIL

REPORT TO AND DECISION OF PLANNING POLICY COMMITTEE ON 27 JULY 2022

REPORT

SUBJECT: Response to Southern Water's Drainage and Wastewater Management Plan (DWMP) Consultation

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AREA: Planning

EXECUTIVE SUMMARY:

Southern Water are consulting on a Drainage and Wastewater Management Plan (DWMP) over the period 13 June to 5 September 2022. This DWMP document has been split into 5 papers, which cover the overall strategy and approach Southern Water intends to take over the next 25 years for the wastewater catchments they serve. This includes the scale and type of investment, prioritisation, and timings. The DWMP comments on partnership opportunities and with respect to DEFRA's intentions towards storm overflows. The headline issues to be raised as a result, will be contained in the Council's proposed response to be published before the meeting.

RECOMMENDATIONS:

That Planning Policy Committee: -

1. Considers and agrees the proposed consultation response to the Drainage Wastewater Management Plan consultation (DWMP).

1. BACKGROUND:

1.1 This is the first formal public consultation by Southern Water on a draft Drainage and Wastewater Management Plan (DWMP) following informal scoping and engagement workshops (reported to members on 30 November 2021). The DWMP consultation runs from 20 June to 5 September 2022.

1.2 The DWMP consultation comprises Southern Water's regional plan with 5 accompanying topic documents about investment needs:-

1. Internal Sewer Flooding.
2. Sewer Condition and Groundwater Pollution.
3. Storm Overflows.

4. Compliance and Pollution; and
5. The Environment.

1.3 This report discusses the DWMP topics issues and proposals affecting the 3 relevant wastewater catchments covering the District. The Topic points below apply for each catchment except where specific catchment or location references are made. The 3 catchments are: -

- Ford – catchment includes the two main urban areas of Littlehampton and Bognor Regis. In Littlehampton this extends to the north to include Lyminster and Crossbush and west up to Burndell Road. In Bognor this covers the main central town and along the coastline over to the east until it merges with the Middleton and west until it reaches the extent of Aldwick parish.
- Lidsey – catchment covers the main inland villages of Yapton, Barnham, Eastergate, Westergate, Aldingbourne and Fontwell, up to the A27 where the planning remit of Arun District ceases. It also extends down to the south to include the built-up area of Middleton and further east around Atherington.
- Pagham – catchment purely covers the main built areas around Pagham Harbour, so to the north the parts of Rose Green in Pagham parish with its western extent being the village of Runcton.

Internal Sewer Flooding

1.4 The risk of internal flood is the first of the planning objectives that the DWMP is required to cover with individual objectives for internal flooding (PO4) and for external flooding (PO7). This is considered to be where flooding occurs within the home or business or restricts access to such. It is stated that experience and data show the main causes to be:-

- Inappropriate use or misuse of toilets and sinks for the disposal of fats, oils and grease (FOG), as well as 'unflushable' items
- This is an industry wide rather than individual company issue.
- Internal flooding caused as a result of surface water flooding and the collapse or bursting of sewers

1.5 Due to this and feedback during some of the early stakeholder workshops Southern Water have added an additional specific planning objective relating to surface water.

1.6 In terms of the FOG and 'unflushables' issue, it is identified that the most effective method for addressing this is at source by influencing customer behaviour. The cost of education programmes can be difficult, although feedback from partner organisations has been positive. The national reporting method for this issue tends to count all properties flooded regardless of the severity

1.7 Southern Water are currently investing £35million through the current review period (2020-2025) to create smarter sewer networks through digitising and installing around 20,000 sewer level monitors. Another action being carried out to reduce internal flooding is carrying out surveys of where tree roots are or may ingress into their sewer network and clearing them.

- 1.8 The Investment Needs for Sewer Flooding only suggests actions to be taken in the Ford catchment, although these are all intended in the short term that correlates with the next price review period of 2025-2030.
- 1.9 To address internal flood issues across the whole catchment they will enhance maintenance, carry out further Customer Education Programmes and do Proactive Jetting.
- 1.10 Specifically with respect Surface Water Management issues across the catchment, a Study is intended to Model the Improvements, including flows for storm and dry weather flows along with a model calibration.
- 1.11 In terms of Sewer Collapse or Bursts, within this catchment it is intended that at the locations of Rustington and Felpham CCTV surveys are carried out to check the sewer integrity, and where necessary, carry out relining and enforcement.
- 1.12 To address Annualised Flood Risk catchment wide, for the Lidsey catchment in the short term, it is intended to do a Study to Model Improvements, including flow surveys for storm and dry weather flows plus calibration of model via potential for impermeable area surveys. For the medium term, in the West Barnham location, it is expected Southern Water will attenuate excess flows in the sewer network through the use of storage tanks to reduce risk of flooding. Costs are based on storage tanks, although surface water separation is the preferred approach.

Sewer Condition and Groundwater Pollution

- 1.13 Poor condition sewers can lead to several risks:
- Blockage, collapse, infiltration and releasing sewage.
 - Seeping into groundwater and affecting its quality; or
 - Vice versa which increases the speed of the flow into treatment works and can cause wastewater to be released automatically through storm overflows.
- 1.14 Causes of can be attributed to:-
- Approximately 50% are a result of poor types of construction material, along with age affecting a large portion of rising mains.
 - Bursts occurring for a variety of reasons, such as deterioration of materials; ground movements; and more extreme temperature changes.
 - Operational pressure on assets due to warmer, wetter winters and population growth with potential for these to occur more frequently in future.
- 1.15 Southern Water expect that 8km of rising main replacements shall be delivered alongside a major investment covering 3.5km in one location, at the same time as improvements to their operational control centre, during the current review period of 2020-2025.

Storm Overflows

- 1.16 Storm overflows are of course a major part of the feedback given in the first

engagement response Arun sent back to Southern Water on this work (Item 8 of PPC 30 November 2021 meeting), and the earlier letter about discharges sent in December 2021.

- 1.17 Storm overflows were originally designed into combined drainage and wastewater systems such that a level of dilution is achieved in the system or waterbody before treatment and discharge into rivers. The EA issues permits to water companies to govern when storm overflows are allowed to discharge into the environment, which are based on pollutant concentration limits. The benchmark is a dilution ratio of 8, meaning the flow of the river under dry conditions must be 8 times greater than any flow of water from the wastewater works. The result being released water should be at a similar dilution as the treated water
- 1.18 The second factor linked to above is the frequency of discharges. Storm overflows were designed into systems to discharge around 40 times per year, with an exception being to bathing and shellfish waters. For storm overflows built since the EU Directives on these came in to being, the frequency of discharges should not exceed 10 times per year for bathing waters and 3 times per year for shellfish waters. Sewers are only capable of conveying flows up to their design capacity, anything above this automatically discharge to reduce the risk of flooding to properties from sewage.
- 1.19 Some of Southern Water's treatment works are fitted with storage tanks to capture excess flows arriving at the works. They are designed to initially store the excess flows but once their capacity is exceeded will discharge to receiving waters. The overflows at the works tend to have the greatest capacity and so some investment will be to enlarge the capacity of these storm tanks at several works. It should be remembered that the Environment Act has placed 5 new obligations on water companies with respect to storm overflows operation and reporting.
- 1.20 Linked to this DWMP work, Southern Water established a Storm Overflow Task Force in 2021 to look at dealing with connected issues differently. One of the main recommendations so far has been to establish 5 pilot projects and to focus on the use of sustainable approaches that stand the test of time and perform into the future with changes to our climate. All are based on the use of nature-based solutions and helping to keep surface water out of the sewer systems and deliver environmental and social benefits. The Task Force is expected to report in summer 2022 and so the outcomes will be integrated before publication of the final DWMP in 2023.
- 1.21 For the 3 catchments in Arun District the following actions are set out in the short term (2025-2030) against each respective catchment below: -
- Pagham – Study modelling storm and dry weather flows, along with model calibration. Additionally, at Summer Lane location, to attenuate excess flows using storage tanks to reduce risk of flooding;
 - Lidsey – Attenuate excess flows in sewer network through storage tanks to reduce risk of spill events. Surface water separation is still preferred option. Additionally at Marshall Close Barnham CSO, to attenuate excess flows in the sewer network through storage tanks to reduce spill events, although surface

water separation is still the preferred option.

- Ford – Construct a number of storage tanks at a number of the existing pumping works and/or combined storm overflows, to reduce the frequency of spill events. These are:
- Broadmark Lane, Rustington x2
- Sea Rd, Littlehampton
- Esplanade, Bognor Regis
- West Park, Bognor Regis
- Bognor Main
- Bognor Regis Foreshore
- Aldwick Avenue

Compliance and Pollution

1.22 There is nothing intended in any of the catchments in Arun District relating to water treatment compliance. The main issues in this aspect relate to Dry Weather Flow (DWF) Compliance. DWF is the average daily flow rate into a treatment works during dry weather, so without the addition of any rainwater. This as mentioned with respect storm overflows is what the EA base the permit level amounts of discharges on. Importantly, this figure will change seasonally due to changing levels of sewer infiltration and population numbers.

1.23 Though there is a national objective connected to compliance of the works into receiving waters, there was none relating to dry weather flows and so Southern Water following earlier engagement on the DWMP with partners, has added this additional objective.

1.24 An increase in DWF can require treatment improvements to maintain the effluent standards of discharges. Infiltration is a significant, increasing issue across the Southern Water's area, due to increased groundwater levels, placing greater pressure on the capacity of treatment works to meet permits. It is therefore vital that groundwater is kept out of the sewer systems to increase capacity available to provide for current and future housing need of the South East. Southern Water specifically mention that, although they have taken account of the most accurate predicted development growth expected, that in the medium to long term, they need to increase their knowledge of how local plans develop.

1.25 Currently, the need for tighter permit controls is not factored into the national requirements. However, as it is expected that those controlling nitrates will become stricter, Southern Water have been working with EA to align the two respective processes. This is hoped to allow a fundamental shift to long term planning and protection of the environment. To deal with wastewater compliance they intend to:-

- Be fully compliant with all permits.
- Work with EA to understand and plan for long-term permit changes, so that in the next DWMP they can plan for relocation of assets and invest in new technology to meet tighter permits; and
- Further align water resources and wastewater resources through exploring opportunities for greater recycling and re-use of water in the South East.

1.26 Specifically for the Pagham catchment and wastewater compliance, in the short term they will review the permit for the Summer Lane works with the EA and deliver associated works to increase capacity of the works. In the medium-longer term, the Lidsey and Ford catchments will need to review the permit for the works with the EA and to deliver associated works to increase capacity of the works.

1.27 In terms of pollution and risk from the wastewater treatment works, the main causes are identified as blockages; rising mains (where water is pumped under pressure to higher level); electrical and mechanical breakdowns; and other operational types. Many of these issues are being dealt with in the next review period of 2025-2030. Overall it is intended that enhancing the reliance of assets, will deal with pollution matters including the consent reviews and delivery of associated works in the longer term. Short term, pollution compliance at Barnham Westergate is intended through enhanced maintenance, along with customer education and proactive jetting.

The Environment

1.28 Due to the high number of 'receiving waters' also being designated sites (with national and international environmental protection, along with their regional importance), it is vital that they are protected. As a result, after talking with partners, Southern Water have therefore included eight related objectives above the standard 6 national ones required. 4 of these are specifically about the quality of surface waters in rivers and seas. These are:

- Achieving Good Ecological Status/Good Ecological Potential (GES/GEP).
- Securing Nutrient Neutrality.
- Improving Bathing Waters; and
- Protecting Shellfish Waters.

1.29 As a result, this section has elements covering all of these subjects due to their linked nature impact to making improvements to the environment. Rather than good status, GEP applies to all 'artificial' or 'heavily modified' waterbodies, including those that have been modified for flood protection, navigation, recreation or storage.

1.30 In this first cycle of DWMPs Southern Water are focusing on understanding where future investment may be needed and could be achieved through collaborating with partners. They intend to focus their investment in catchments where the EA has confirmed that one of the reasons for not achieving GES or GEP is due to their operations.

1.31 Though many rivers and streams within Arun District may be classed as heavily modified, only Aldingbourne Rife has been failing the required standards, resulting from being downstream of the Tangmere treatment works, which has been clearly mentioned within the adopted Arun Local Plan 2018 and associated documents such as the EA's River Basin Management Plan for the South East. As a result of this, the one project identified (relating to the first objective that affects Arun), within the Ford catchment, in the short term, for the Aldingbourne Rife is for a study to be undertaken to understand the risks and sources that Ammonia is having on linked waterbodies.

- 1.32 Another study project is suggested for the Pagham catchment due to the Harbour and the Solent and Dorset Coast. With respect to nutrient neutrality, it is well known that Arun is the only District currently that has not been directly affected by this issue but is surrounded by those that have. Due to its international importance, a precautionary approach is being applied to Pagham Harbour to ensure it is afforded proper protection. Wastewater that drains to a Habitat site must ensure that it does not add to the existing nutrient burden that may cause any deterioration. At present, the overall approach is for a nutrient neutral approach to be taken. Oneway this can be done is to ensure that all surface water runoff is equal to, if not lower than, that which it begins as. As well as addressing existing contributors, it is vital that projected growth can be accommodated without adding to the load via wastewater systems. It is worth noting that EA have begun work to assess the ecological status of Pagham Harbour (as reported to Planning Policy Committee 7 June 2022).
- 1.33 Similarly, a study project has been included for the Lidsey catchment, both due to the proximity to the Lidsey Rife and the Solent and Dorset Coast, to develop a nutrient budget and to understand the risks and sources impacting Habitat sites. A study will aid with achieving GES linked to a phosphate determinant for the Lidsey Rife.
- 1.34 Finally, with respect to the last 2 objectives (section 1.31 above) in terms of bathing and shellfish waters, only the first of these applies to the catchments in Arun. As a company Southern Water intend corporately to maintain the bathing waters at “excellent” and improve on this standard by 2024/25. The overall intention presented in this DWMP document is to achieve this by making their networks more resilient. However, one project in the Ford catchment has been identified specifically in this respect. This is to construct a storage tank or separate surface water to reduce spill events (see under storm overflows further above), in the short term.

Next Steps

- 1.35 Due to the short amount of time between the commencement of the consultation and the committee deadline for submitting reports, the draft consultation response for Arun will be circulated separately before the meeting. Links to the consultation documents are available below. A copy of the draft response will also be placed on the relevant Council web pages.

2. PROPOSAL(S):

That the Planning Policy Committee note the content of this report and agrees that the letter sent out prior to the meeting forms the basis for the Council’s formal response to the DWMP consultation.

3. OPTIONS:

The following options are available:-

- To agree the response; or
- Not to agree the response.
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4. CONSULTATION:		
Has consultation been undertaken with:	YES	NO
Relevant Town/Parish Council		x
Relevant District Ward Councillors		x
Other groups/persons (please specify)		x
5. ARE THERE ANY IMPLICATIONS IN RELATION TO THE FOLLOWING COUNCIL POLICIES: (Explain in more detail at 6 below)	YES	NO
Financial		x
Legal		x
Human Rights/Equality Impact Assessment		x
Community Safety including Section 17 of Crime & Disorder Act		x
Sustainability	x	
Asset Management/Property/Land	x	
Technology		x
Other (please explain)		x
6. IMPLICATIONS:		
<p>This response will inform the progression of the DWMP and identify areas where investment priorities should be focused for improvement of the drainage and wastewater infrastructure network. This may help to secure existing and future property, assets and human health, from the risks of flooding arising from development and climate change</p>		

7. REASON FOR THE DECISION:

The Council needs to respond to a public consultation by Southern Water to ensure that all concerns and issues connected with the sewerage, drainage and water supplies currently and in the future are accounted for and addressed in infrastructure planning needed for existing customers and future customers in Arun.

8. BACKGROUND PAPERS:

1. PPC Papers and Minutes from 30 November 2021 (Item 8) - [Agenda Template \(arun.gov.uk\)](https://www.arun.gov.uk)
2. Southern Water's Drainage and Wastewater Management Plan consultation – <https://southernwater.co.uk/dwmp>