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Dear Member

Following on from the meeting I chaired with Southend City Council and Anglian Water, I have managed to obtain the slides that were presented and from that, a list of questions from members and the responses from both the council and Anglian water.

Regards Ron and the Committee.





Monday 15th January 2024

Grant Tuffs – Regional Engagement Manager Matthew Moore - Floods Partnership Manager James Froggatt – Regional Treatment Manager Sophie Triggs – Water Recycling Network Manager Ian Phillips – Network Support Technician





















Flooding in Southend

How we are working to reduce flooding in Southend

- Surface water partnership schemes
- Sustainable Drainage Systems and other mitigation
- Sewer monitor installation programme

Flooding in Thorpe Hall Avenue

- Cause
- Proposed solutions

Marine Parade – Surface Water Partnership Scheme Government of the Scheme Control of the



Improving resilience to changing climate

- Rainfall Surface Water / Multi-Source
- Reduced storm overflow spills
- · Sewer Flooding
- · Sea Level Rise
- Drought
- · Heat Stress













Fairmead Avenue (Area)









- - · Less surface water into foul sewer
 - Reduced storm overflow spills Cheaper water bills
 - Less energy used













£400K

Innovation





University of Exeter - Our Rainwater

Using citizen science to encourage the re-use of surface water, and educating the public on why capturing rain water is so important to the environment



Catchment To Coast – DEFRA Innovation Project

Using innovation to deliver flood mitigation, water re-use and water quality projects



HydroRocks

Using rockwool to absorb water which can then be re-used in the ground, similar to an aquifer, but without having to rely on the correct geology.



Dynamic Sewer Visualisation programme





We will have installed 22,000 sewer monitors in high-risk, priority locations by the end of 2025.

The programme has been a great success so far, in the Southend area we have 105 blockages.

In this area we are installing 297 monitors. 256 of these have already been installed.





Flooding in Thorpe Hall Avenue



Cause

- The flooding is caused by a mix of surface water getting into our foul sewer network and higher than normal tides.
- Recently, we have seen flows between 3,000 and 5,000 litres per second going into the long sea outfall.
- This means that the final effluent mixed with storm water cannot escape into the sea from our long sea outfall.

The extent of the problem means there is not a practical, short-term solution to prevent this surcharging occurring.





Flooding in Thorpe Hall Avenue

Proposed solution

- Short term: We have engaged PSS to deploy sandbags proactively when our modelling predicts flooding.
 - We are looking to relieve pressure on the sewer by maximising our balancing capacity at Southend WRC.
 - We are also optimising the flow rates of our new terminal pumping station at the WRC.
- **Medium term:** We are exploring the possibility of more permanent mitigation measures with council officials. Such as, property flood resilience and highway improvements to try and channel water away from at-risk properties when these flood events occur.
- Long term: As part of our business plan for 2025-2030, we have proposed an investment of £50 million to work in partnership with Southend-on-Sea City Council to remove as much surface water from our foul and combined networks as possible. The success of this would be reliant on partnership funding.

Southend-on-Sea City Council – Flooding Scrutiny Committee questions – 15th January 2024

1. Given the Met Office/ EA predictions suggests that Southend will see significantly increased rainfall, as well as heat waves, due to climate change, have we modelled surface water flooding risk? Could we please be provided with any results, especially heat maps, if this has been conducted?

Response:

- Grateful for further clarification as to whether this refers to flooding from any sewer (i.e. foul/combined/storm) or just what we class as surface water systems (storm)?
- Surface water systems (storm) flooding is generally not modelled with the same level of detail as they do not include all the other sewers (highways) or watercourse interactions as well as boundary conditions (tides).
- We also do not carry flow surveys on such systems unless we have an existing driver to investigate (flooding/pollution).
- To model the true extent of surface water flooding we would require an integrated model (AW/Highways/Watercourses/Sea). Our models are generally limited to public sewers both for foul and surface water systems.



2. Is there a longer-term strategy to separate the surface waste-water network from the domestic system?

Response:

- We are working alongside Southend-on-Sea City Council, The RFCC, EA and DEFRA to implement schemes to remove surface water away from the foul sewer system.
- So far, we have schemes in progress for Fairmead Avenue, Ruskin Avenue and Marine Parade. These schemes will directly look at removing surface water away from the foul and combined sewer systems. They will also look at other benefits such as the implementation of green space, tree planting etc.
- 3. What assessment has been made of streams within Southend and their capacity to flood, and do we need new flood defences in this regard?

Response:

- The Environment Agency would be responsible for undertaking such an assessment.
- 4. We have known hot spot areas for surface water flooding, for instance in Eastwood around Snakes Lane, how we can address this?

Response:

- We monitor the inlet/outlet screens, keeping them free of debris to reduce the likelihood of restrictions to the watercourse, which could then slow the ingress of water from the surrounding surface water sewers.
- 5. What measures have been put in place to assess and address any contaminants from surface runoff being released into the bathing and shell-fishing waters on our coastline?

Response:

- There are no measures in place from an Anglian Water's perspective for contaminants. If the flooding was sewage and caused by a fault in one of our assets, we have a tool we can use to determine the potential impact on the coast for bacteria but currently not for any other determinants.
- We are exploring if we could upgrade the tool to cover things like nutrients which may also be elevated by sewage. This tool wouldn't be suitable for flooding caused by rainfall, groundwater, overtopping water courses etc.



- As the lead authority for water quality, we suspect this type of assessment would be more likely to be completed by the EA and any decision to close beaches or fisheries would come down to the local authority.
- Regularly cleaning of the road surfaces and surface water gullies on the roadside can help to reduce the amount of contaminants that are likely to be on the roads should flooding occur but every time a car drives by, it would just create more.
- 6. What are the return factors (frequency of extreme flooding event) along our coastline?

- This is very difficult to quantify. Return factors take into account rainfall depth and duration, but not the condition of the catchment at the time. We may only have a 1 in 5 or 1 in 10 rainfall event, but it's falling on very saturated ground, with elevated watercourse levels, higher than normal tides all contribute towards a "perfect storm" for flooding.
- 7. There is a planned new development to be built in Shoebury on a flood plain, which will involve raising the ground. We have seen in storms last year that this can cause flood water to be displaced and cause problems elsewhere. Have we scrutinised the future flood risk to surrounding areas caused by this development, taking into consideration the Env Agency investigation into this practice?

Response:

- We are aware of a large development in Shoesbury, application reference 20/01227/OUTM Land Between Barge Pier Road and Ness Road Shoeburyness. The outline application has conditions relating to surface water drainage. Within the adoption condition we are mentioned as a potential adopting body. If the developer wishes for us to adopt all or parts of the SuDS system they will need to contact us to ensure any strategy meets our adoptable standards.
- We will only comment on the surface water strategy if there is a connection proposed to our assets. When a connection for surface water discharge is proposed into the public network, we will require the developer to engage with us to ensure any risk of sewer flooding is understood and mitigated against. Any mitigation and network modelling will be funded entirely by the developer.



- If surface water is discharged via other means, such as to a watercourse, or
 infiltration we will not make comments on the proposed strategy. It is not within our
 remit to do so, this falls into the responsibility of the Lead Local Flood Authority and
 when the site falls within the flood plain the Environment Agency would also make
 comments regarding the strategy and risk of flooding outside the red line boundary.
- Also worth noting that we are obligated to accept the foul connection to our network under the Water Industry Act.
- 8. When floods do occur, what clear up/recovery methods do we have available?

When flooding occurs because of our assets, we deploy a clean-up crew if there is a threat to the environment.

- 9. Are there any innovations or research underway to help us going forward?
 - Fairmead Avenue and Ruskin Avenue are both being brought forward under DEFRA's Flood & Coast innovative resilience programme which strongly encourages innovation.
 - The schemes are looking at using innovative citizen science "hydro-citizenship" and innovative products like HydroRocks to store water and allow plants and trees to use it when it needs to.
 - We are also looking to implement innovative planters at people's properties to take their roof water away and provide growing spaces for plants.
- 10. What can be done to stop the flooding issues along Thorpe Hall Avenue, especially when there is heavy rain?

Response:

 The flooding in Thorpe Hall Avenue and Thorpe Hall Close is caused by a mix of surface water getting into our foul sewer network, and higher than normal tides meaning the final effluent mixed with storm water cannot escape into the sea from our long sea outfall.



- Recently, we have seen flows between as much as 3,000 and 5,000 litres per second
 going into the long sea outfall. This is a substantial amount of water and makes any
 solution substantially more difficult to implement. Investigations are and have been
 for some time ongoing here to look at realistically can be done.
- To stop the flooding, we would have to store the water somewhere until the tide levels recede, and at a flow of the lower 3,000 litres per second, attenuating for an hour we'd need storage of over 10,000 cubic metres and the space at Southend simply does not exist.
- Our long-term strategy for this is our advanced WINEP (Water Industry National Environmental Programme). We have asked OFWAT for £50 Million as part of our PR24 (next five-year business plan from 2025-2030) submission to work in partnership with Southend-on-Sea City Council to remove as much surface water from our foul and combined networks as possible. This has multiple benefits such as reducing or in some cases eliminating CSO spills, reducing flooding within the catchment, and greatly reducing the flooding within the Thorpe Ward.
- Put simply, this programme aims to ensure that as far as possible, only foul flows enter the foul sewer system, and we remove as much surface water as practicably possible from our combined sewers.
- As other agencies also have a responsibility for surface water flooding, the WINEP programme will require contributions from other organisations and government to make it a real success.

Further description of the issue and short-term solutions:

- Structurally the pipeline which runs under Thorpe Hall Avenue is in good condition.
 The issue occurs during heavy rainfall and high tide, which results in excessive amounts of surface water entering our system and overwhelming the pipeline.
- The flow in the pipeline is a combination of treated effluent and storm water. We
 have carried out several in depth surveys of this pipeline over the past 4 years to
 understand the hydraulics better, confirm the condition and inform our future
 strategy.
- Short term, using the monitoring data we have installed, and the information gathered, we are looking to relieve pressure on the pipeline by maximising our balancing capacity at Southend WRC. We are also optimising the flow rates of our new terminal pumping station at the WRC which went live in November – coinciding with some recent flooding events.



- We will continue to model these changes with the aim of reducing the frequency of the flooding events. Our long-term strategy is to remove the excess surface water from our foul system (see above).
- We are also committed to working with Southend Highways to mitigate the impact of any flooding. For example, we are exploring with Southend Highways whether there is scope for them to raise curbs along and around Thorpe Hall Close to stem any flooding from entering the Close.
- We will also ensure our response is as effective as possible for example sandbags will be deployed to protect properties in the likelihood of an event.
- 11. A few years ago, there was a major sewage leak into Southchurch Park Lake, what action has/will Anglian Water going to take to remove the sewage which is at the bottom of the lake?

- At the time of the high ammonia content entering the lake, Anglian Water had the
 catastrophic failure at our WRC on Stock Road. This and the excessive rainfall a few
 days later, caused the CSO to overflow, running to surface water gullies along
 Shaftsbury Avenue, which then flowed to the pumping station that discharges into
 the lake.
- We utilised tankers to remove as much of the contaminated water as possible, then aerated the lake for around four further weeks. This process resulted in reducing the ammonia readings to an EA acceptable level.
- The lake has since been fitted with aeration units placed around for best results.
- 12. With the amount of new housing being undertaken by Rochford and Southend Councils, what guarantees can residents have that the sewage works will be able to cope in the future?

Response:

Southend WRC has capacity to accommodate the growth coming forward. We
continue to monitor growth within the catchment, using adopted and emerging local
plans, neighbourhood plans and planning applications. This gives us a view of sites
emerging and timescales of sites connecting to the foul network. This strategic
picture allows us to forward plan investment and prioritise funding across our
region.



- The Southend Sewerage catchment was included within our Drainage and Wastewater Management Plan (DWMP) covering 2025-2050. The outputs from the DWMP go on to support the creation of our Long-Term Delivery Strategy (LTDS) and our proposed business plan for 2025-2030.
- 13. On the same subject, with all the proposed housing will the current water dispersal system cope?

- We are not responsible for providing water services in the area so would suggest that this question is put to Essex and Suffolk Water.
- 14. Challenge along Hinguar Street, Shoeburyness with the sewer drains. The Councillor has suggested he would like Anglian Water to inspect the full street of drains to inspect the problems being experienced along that street.

Response:

- We will arrange for a CCTV survey of our assets to confirm their condition. Should there be any issues found, they will be rectified.
- However, due to the backlog following the flooding the area has experienced from the recent storm events, we cannot confirm a timeframe for this survey.

1) Information Corner



BERA Coffee Morning

Where: **Thorpe Bay Methodist Church** (corner of The Broadway and Johnstone Road) When: **Thursday 18**th **April 2024** at **10.00am to midday**

Our next coffee morning is on Thursday 18th April, so please join us again for engaging chats and laughter, accompanied by free tea, coffee, and homemade cakes.

Bring along a friend and we look forward to welcoming you.

BERA

BERA Renewal – PLEASE RENEW BY 31ST MARCH

If you have not yet renewed your BERA membership either by cash, cheque or bank transfer, please do so by the **31**st **March** in order to continue your membership and to enable us to continue the good work that we do for you and our area. Thank you.



THORPE BAY HORTICULTURAL SOCIETY

FLOWER AND HOMECRAFT SHOW

AT ST AUGUSTINE'S CHURCH HALL JOHNSTONE ROAD THORPE BAY

SATURDAY: 6th APRIL

AT 2.15pm

Admission £1 Members free







Shoeburyness Library Closure- Saturday 30th March

Unfortunately due to staff sickness, Shoeburyness Library will be closed all day on Saturday 30th March and they are expecting to re-open as usual at 9am on Tuesday.

Major Works 31st March to 7th April 2024

Address PARKANAUR AVENUE

Start 08/01/2024 End 04/04/2024

Works Reference AZ502-1001279887

L.A.Ref 140247

Works Status IN PROGRESS

Highest TM MULTI-WAY SIGNALS - DELAYS LIKELY

Address THE BROADWAY

Start 04/03/2024 End 28/05/2024

Works Reference AZ502-1001280674

L.A.Ref 140362

Works Status IN PROGRESS

Highest TM SOME C/W INCURSION - DELAYS UNLIKELY

Address FERMOY ROAD

 Start
 22/03/2024

 End
 26/04/2024

Works Reference AZ502-1001280675

L.A.Ref 140363

Works Status PROPOSED WORKS

Highest TM SOME C/W INCURSION - DELAYS UNLIKELY

Address THE BROADWAY

Start 25/03/2024 End 02/04/2024

Works Reference AZ115-1001331777 - IMMEDIATE (URGENT)

L.A.Ref 146382

Works Status IN PROGRESS

Highest TM ROAD CLOSURE - DELAYS LIKELY

Temporary Road Closure – The Broadway – 26th March 2024 for 1 week - Emergency Gas Repairs

To facilitate emergency gas repairs; they have imposed a prohibition of traffic in The Broadway, Thorpe Bay.

Whilst this notice is in operation, all vehicles will be prohibited from:



PROCEEDING ON THE BROADWAY FROM ITS JUNCTION WITH JOHNSTONE ROAD TO ITS JUNCTION WITH BURGES ROAD.

These prohibitions or restrictions came into effect on 26th March 2024 and it is anticipated that the works will last for 1 week.

Whilst this section of The Broadway is closed, an alternative route for traffic will be marked on site and resident's access will be maintained where possible.





2) National Corner

Train strikes

Train strikes are due to impact services between 4 and 9 April in a long running dispute over pay and conditions continues. The ASLEF union are co-ordinating a series of staff walkouts and overtime bans for drivers which will bring disruption to services.

Public footpaths blocked

There have been an increasing number of public footpaths and right of ways blocked, campaigners have claimed. A previous freedom of information requests by the BBC found that councils had 4000 more reports of obstructions on footpaths in 2023 compared to 2022.

Raw sewages discharges

More than four million hours of raw sewage discharges poured into rivers and seas last year, a 129 per cent increase on the previous 12 months, new Environment Agency figures are expected to show. Total discharges from the 14,000 storm overflows owned by English water companies that release untreated sewage into rivers and coastal waters increased by 59 per cent to 477,972.

Regulators urged to act over water companies' record sewage discharge Regulators face pressure to act after further evidence of potentially illegal activity by water companies has been revealed. Guardian analysis of the latest data shows that more than 2,000 overflows owned by a number of companies are discharging raw sewage into rivers and seas at a scale that should spark an immediate investigation into illegal breaches of permit conditions.

Record numbers cross the Channel

A record 4,644 migrants have crossed the Channel in small boats in the first three months of this year, Home Office figures showed on Wednesday.

3) Crime Report 18th to 24th March 2024

Ward Thorpe
Crime Reference Number 42/45657/24

Offence Description Theft if not classified elsewhere

Reported Date and Time 21/03/2024 11:46 Committed Date (From) 21/03/2024 11:30

Street partial postcode WOODGRANGE DRIVE SS1 2

Offence Details (MO)

SUSPECT UNKNOWN HAS STOLEN THE VICTIMS GAS DETECTING UNIT FROM THE ROADSIDE WHICH HE LEFT BEHIND BY ACCIDENT AND THEN RETURNED FOR 10 MINS LATER BUT WAS GONE.

BERA

4) Scam Alert

Scammers imitating bank websites

In 2023 there were more than 2,000 reports of fake websites that appear to imitate UK banks. Although banks attempt to get lookalike websites taken down, the number being registered, and the sometimes inadequate response from domain websites, means they're up long enough to find victims.

These copycat websites play a crucial role in impersonation scams.

Double-check short links

On the topic of fake websites, link shorteners are free tools to make website links a lot shorter. These services are legitimate but can be used by scammers to 'mask' the actual URL and appear more legitimate.

Look out for short links.

We are warning EE customers about sneaky texts

We have seen at least 10 different versions of a text scam that tell you there are points in your account or you have a prize to claim, all with a link to a scam website.

We don't advise that you click on a link from a text message, as malicious links can contain malware that will infect your device.

5) <u>List of Decisions Issued Week Ending 24th March 2024</u>

APPLN. NO: 23/02045/FULH

Ward. Southchurch

Officer: Hayley Thompson

ERECT SINGLE STOREY REAR EXTENSION AND INSTALL JULIETTE BALCONY

TO EXISTING REAR DORMER

17 STEYNING AVENUE SOUTHEND-ON-SEA ESSEX

Decision: Grant Conditional Permission

APPLN. NO: 24/00133/FULH

Ward. Southchurch

Officer: Scott Davison

ERECT SINGLE STOREY REAR EXTENSION
77 GLYNDE WAY SOUTHEND-ON-SEA ESSEX

Decision: Grant Conditional Permission

APPLN. NO: 24/00074/FULH

Ward. Thorpe

Officer: Kara Elliott

RAISE RIDGE HEIGHT, HIP TO GABLE ROOF EXTENSIONS AND INSTALL DORMER TO REAR TO FORM HABITABLE ACCOMMODATION IN THE LOFTSPACE, ERECT PART SINGLE/PART TWO STOREY REAR/SIDE

EXTENSION WITH BALCONY TO FIRST FLOOR REAR, FORM CANOPY OVER

FRONT PORCH AND ALTER ELEVATIONS (AMENDED PROPOSAL)

33 LYNTON ROAD THORPE BAY ESSEX

Decision: Refuse Permission



APPLN. NO: 24/00148/CLP Ward. Thorpe

Officer: Tinotenda Mangwanda

HIP TO GABLE ROOF EXTENSIONS TO FORM HABITABLE ACCOMMODATION

IN ROOF AND ALTER ELEVATIONS (CERTIFICATE OF LAWFUL

DEVELOPMENT PROPOSED)

38 THORPE HALL AVENUE THORPE BAY ESSEX

Decision: Grant Lawful Dev Certificate (Proposed)

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