# OUR DRAFT DRAINAGE AND WASTEWATER MANAGEMENT PLAN

## HAVE YOUR SAY

NORTHUMBRIAN WATER *living water*

# Foreword

## Welcome to an overview of our draft Drainage and Wastewater Management Plan (DWMP) and thank you for your interest in this important topic.

This is a critical document as we aim to make sure we can continue to deliver your wastewater (sewerage) services in the future.

In sharing these plans in draft form, we hope to get views from as many of our customers as possible. One effect of the COVID-19 pandemic was to renew many people's connection with the natural environment around them and we're delighted that more people are enjoying bluespaces in their local areas. We welcome the renewed interest our customers have in the environment, and we seek to meet the high environmental standards our customers expect.

In our DWMP we are proposing some big changes to the ways in which the sewerage system operates to allow us to better cope with future challenges such as climate change and population growth, and to protect the environment. These changes will require some investment and we must now try to understand which decisions will provide the best balance between environmental protection and lessening flood risk, with maintaining affordable bills for customers.

The water industry cannot solve these issues alone. Work towards this plan has therefore been carried out in collaboration with a range of partners to seek multiple benefits for our communities. A huge amount of work has gone into these plans so far, and groups of our customers, stakeholders, and our customer challenge group, known as The Water Forum, have all been involved in shaping this draft DWMP. You can read more about the detailed plan **here**.

> **The water industry cannot solve these issues alone.**

This shorter document aims to help you to understand what a DWMP is and how it is used to plan your wastewater services for the next 40 years. It gives important context about how the sewerage system works and sets out costed options about the kinds of investments we might make.

It's therefore important that you share your thoughts on the different options, laid out in summary at the end of this document, to have your say on what wastewater services you want from us. Your views will help us to take the right decisions and shape the final DWMP, which we need to submit to our regulator, Ofwat, in March 2023.

I very much hope you find this document informative and encourage you to send in your views.

**Richard Warneford, Wastewater Director**

# Introduction

## We provide water and wastewater services to 2.7 million people in the North East of England.

The role we have in providing you with such an essential service is one we take very seriously. We rely on the environment around us for our raw material (water) and we work hard to make sure it's clean, clear, and great tasting.

We're responsible for taking wastewater away from homes and businesses, and treating it, so it can be safely returned to the natural environment such as rivers and seas.

We're proud of our environmental track record. In the North East, 32 out of 34 bathing waters are classed as excellent or good. The Environment Agency (EA) rates us as four star (it's highest assessment), and we've been industry leading in reducing pollution in the last few years, something our customers tell us is very important to them.

Earlier this year, we published **A Vision For Our Coasts And Rivers**, containing nine ambitious pledges to contribute to further improvement of our water environment to benefit local communities. We are only one of many organisations that are responsible for drainage, preventing flooding and protecting the environment and whose operations can influence river water quality.

> **We're proud of our environmental track record.**

# Introduction (cont'd)

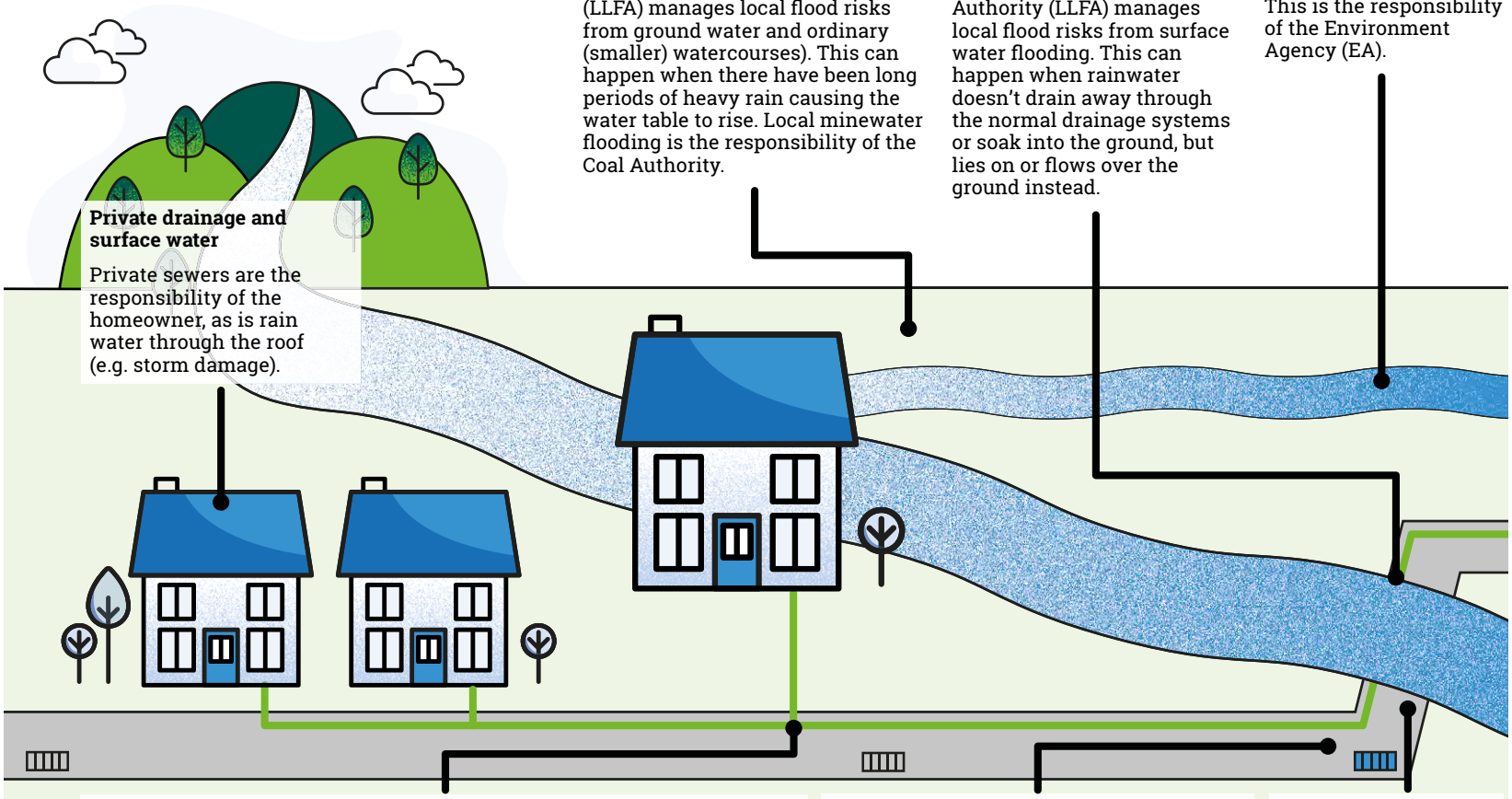
We are specifically responsible for the **wastewater system**, which includes things like drains, manholes, pumping stations, and storm overflows, as well as treatment works and SUDs (sustainable urban drainage).

We recognise there are others who can have an impact, often a greater impact than we can, on the quality of rivers and beaches.

With this in mind, we lead and support partnership activity that can collaboratively develop the best and most innovative solutions.

We all need to work together to make sure everyone can continue to enjoy the natural environment for years to come.

## Drainage: who is responsible?



**Groundwater flooding**

The Lead Local Flood Authority (LLFA) manages local flood risks from ground water and ordinary (smaller) watercourses). This can happen when there have been long periods of heavy rain causing the water table to rise. Local minewater flooding is the responsibility of the Coal Authority.

**Surface water flooding**

The Lead Local Flood Authority (LLFA) manages local flood risks from surface water flooding. This can happen when rainwater doesn't drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

**Main river and coastal flooding**

This is the responsibility of the Environment Agency (EA).

**Private drainage and surface water**

Private sewers are the responsibility of the homeowner, as is rain water through the roof (e.g. storm damage).

**Public sewers and utility pipes**

We are specifically responsible for the wastewater system, which includes things like drains, manholes, pumping stations, and storm overflows, as well as treatment works and SUDs (sustainable urban drainage) that we install or adopt.

**Highway gullies and drains**

The local highways authority and unitary / county councils have the lead responsibility for providing and managing highway roads, footpaths, drains and gullies.

**Major roads and motorway drainage**

The Highway Authority is Highways England.

# What is a draft Drainage and Wastewater Management Plan (DWMP)?

**When you flush the toilet, you probably don't think about the system that transports sewage (poo) away from your home or business. And when it rains, you might not consider how rainwater drains away, particularly during heavy storms. But we do.**

And our care and respect for our natural environment goes far beyond any legal requirements. We work constantly to protect and enhance your local coasts, rivers, and watercourses.

Population growth and changes to our climate are presenting big challenges for the water industry. We want to make sure our drainage and wastewater system will be able to cope in the future. We call this long-term resilience.

A resilient system will continue to treat and dispose of wastewater effectively despite the pressures the next decades bring.

**1950 =**

**253m** flushes a day!

**2022 =**

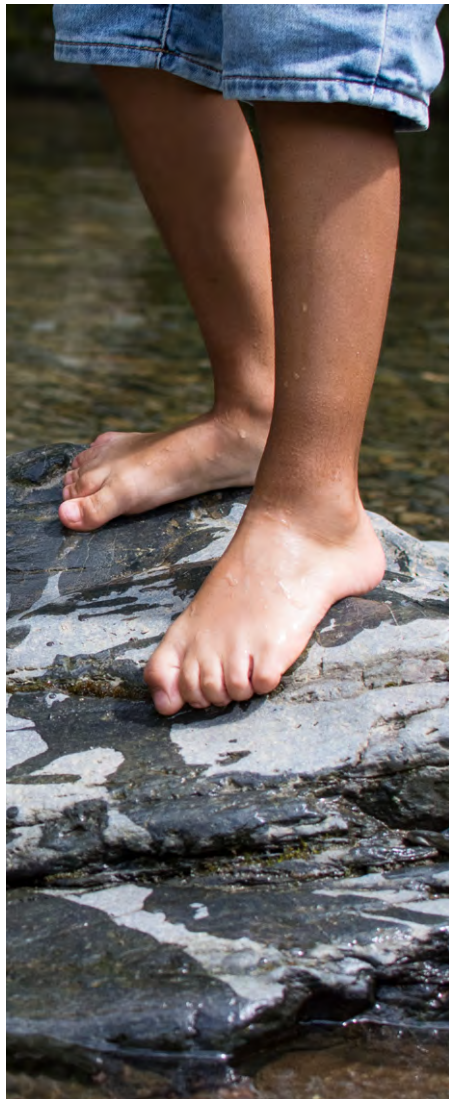
**342.5m** flushes a day!

Figures based on UK population.

> **Our DWMP outlines the level of investment needed to make sure the drainage and wastewater system can cope in the future.**

The Government requires us to plan for the next 25 years. We've chosen to look ahead 40 years, which is the same long term planning period we consider for the rest of our business operations, for example, our Water Resources Management Plan (which looks at how we can make sure there will be enough water in the future).

Our DWMP outlines the level of investment (money) needed to make sure the drainage and wastewater system can cope in the future. We must be careful to work at a pace that is affordable to our customers, and fair to our communities, while seeking the highest environmental performance.



# Why is a DWMP useful?

While we can't predict the future, we can plan for certain scenarios. Our long-term plan will show how we plan to manage the risks to our network from a range of different or uncertain future pressures. These include:

### Flooding

An effective sewerage system must be able to handle sewage and rainwater, to reduce the risk of flooding to our homes and communities. You can help us by only flushing toilet paper, pee, and poo and by putting other items, such as baby wipes, nappies, and sanitary products, in the bin to prevent blockages forming in the sewer network.

**Our ambitious goal is to eradicate sewer flooding in the home as a result of our assets and operations.**

### Environment

Because there is less green space, a growing population and climate change, there's more risk of pollution in our rivers and beaches. We are not in full control of the volume, or even the items added to our flows, but we work hard to engage the public to prevent fly tipping, misconnections, and flushing items they shouldn't.

**Our ambitious goals are to demonstrate leadership in catchment management to enhance natural capital and deliver net gain for biodiversity, and to have the best rivers and beaches in the country.**

### Compliance

Our regulators set rules to make sure our sewage treatment works can handle demand, without having a negative impact on the local environment.

**Our ambitious goal is to have zero pollutions as a result of our assets and operations.**

> **Our long-term plan will show how we plan to manage the risks to our network from a range of different or uncertain future pressures.**

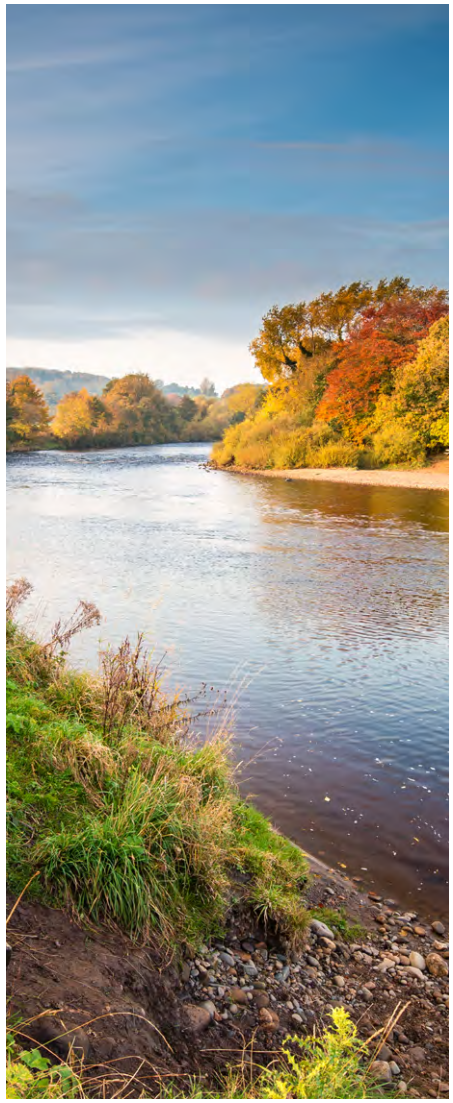
# How we developed our draft DWMP

Our Drainage and Wastewater Management Plan covers Northumberland, Tyneside, Wearside, Rural Tyne, Wear, Teesdale and Teesside.

We have spent the last year investigating:

- The scale of the problems.
- The timing of the problems.
- The costs and benefits.

We analyse data along with modelling and surveys to find the potential challenges and risks to identify which area is most at risk.



# What are storm overflows and why are they important?

At times of heavy rainfall our pipes can reach full capacity and there's a risk that rainwater, wastewater, and other items incorrectly flushed into our network can be forced back into customers' homes. Sewer flooding is the worst service failure our customers can experience.

Storm overflows (SOs) act as a relief valve, releasing this heavily diluted mix (mostly rainwater) back into the environment, protecting homes from sewer flooding.

The EA permits how and when we can use SOs.

The Government is currently consulting on its Storm Overflows Discharge Reduction Plan (SODRP). The plan from Defra sets out targets for water companies to reduce the harm caused by pollution from SOs.

The frequency of discharges from SOs has increased over time because of climate change, population growth and changes in customer behaviours, i.e. increased use of plastics being put into the system and causing blockages. We share the views of Government and the public that we need to address the issues with SOs, made greater by climate change and population growth, as a priority. Our draft DWMP does this, while recognising that to tackle an issue of such a large scale as this, we would need a significant amount of financial investment in the future.

We have taken account of the SODRP within our draft plan; however, it remains a live consultation and we are keen to hear customer views on the options in this plan.

> **Sewer flooding is the worst service failure our customers can experience.**

# The four options

To help our regulators take a balanced view of the costs and benefits of our DWMP, we have set out four options. Here is a basic summary of these options but you can read more about each one in detail **here**.

## Option one

Our plan will work to achieve the targets the Government has proposed in its Storm Overflow Discharge Reduction Plan (SODRP) in the cheapest way possible (predominantly by building concrete tanks underground to temporarily store rainwater).

No other benefits are achieved so this option includes little flood risk reduction benefits to local properties.

We estimate this option will increase the average bill by 13% (around £49 a year) by 2045. This doesn't include the rate of inflation.

**13%**

(around £49 a year)

## Option two

Our plan will work to achieve the targets the Government has proposed in its Storm Overflow Discharge Reduction Plan (SODRP) in the cheapest way possible (predominantly by building concrete tanks underground to temporarily store rainwater).

In addition, we would join up our SO activity to Northumbria Integrated Drainage Partnership schemes – NIDP is an innovative partnership approach. It brings the North East councils, the Environment Agency and us, to work collaboratively to reduce flooding risk from all our operations together. NIDP partners jointly fund integrated flood risk studies and joint delivery schemes, to tackle flooding from sewers, rivers, and surface water, so not just our operations alone.

This option would see the risk of internal sewer flooding (during a 1 in 20-year storm) being reduced for 2,464 properties from 2025-30.

Although the exact number of properties to benefit after 2030 can't be calculated exactly, we estimate this to be between 2,200 and 2,500 every five years.

We estimate this option will increase the average bill by 17% (around £64 a year) by 2045. This doesn't include the rate of inflation.

**17%**

(around £64 a year)

# The four options (cont'd)

## Option three

Our plan will look at the best value way to achieve the targets the Government has proposed in its Storm Overflow Discharge Reduction Plan (SODRP) by looking at the cost against each drainage community. These are typically an area around a storm overflow, sewage pumping station or wastewater treatment works.

You can read more about drainage communities **here**.

Communities are more likely to enjoy the societal benefits of using natural solutions to solve problems, rather than built infrastructure (such as creating natural habitats such as swales and ponds to store water). We would also work collaboratively, as described in option two.

This option would see the risk of internal sewer flooding (during a 1 in 20-year storm) being reduced for:

- 8,084 properties in 2025-30
- 4,560 properties in 2030-35
- 9,884 properties in 2035-40
- 5,475 properties in 2040-45

We estimate this option will increase the average bill by 34% (around £123 a year) by 2045.


## Option four

Our plan will look at the best value way to achieve the targets the Government has proposed in its Storm Overflow Discharge Reduction Plan (SODRP) by looking at the cost against each drainage community as described in option three.

In addition, we would include interventions to work towards our ambitious goal of having zero internal property flooding by 2040. We would deliver the targets proposed by the Government faster than in their SODRP.

Communities are more likely to enjoy the societal benefits of using natural solutions to solve problems, rather than built infrastructure (such as creating natural habitats such as swales and ponds to store water).

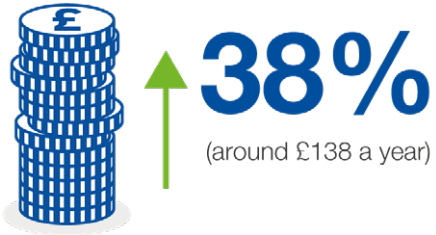
There would be opportunities to work collaboratively with the EA and local authorities to reduce flooding risk from all our operations, as detailed in option two.

This option would see the risk of internal sewer flooding (during a 1 in 20-year storm) being reduced for:

- 11,527 properties in 2025-30
- 10,786 properties in 2030-35
- 11,285 properties in 2035-40

Beyond 2040 we would need to consider the impact of climate change.

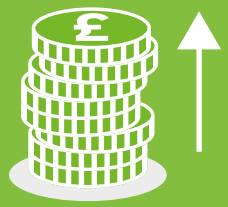
We estimate this option will increase the average bill by 38% (around £138 a year) by 2045. This doesn't include the rate of inflation.



# Have your say

To have your say and answer the questions below, please **click here** to fill in our survey.

**Which of the four options do you think is most acceptable to you?**



**Would you support an increase in your water and wastewater bill to reduce the risk of flooding and enhance your local environment?**

**How much extra would you be willing to pay for each of the options?**

If you'd like to read more about the DWMP, please **click here**.

Alternatively, if you have any questions you can email **DWMP@nwl.co.uk**.

# Next steps

Consultation closes in September 2022. We will then reflect on customer and stakeholder feedback on the draft DWMP before publishing our final DWMP in March 2023.

This will involve some detailed work, including comparing with plans from other organisations, reviewing the latest climate change data. We will also want to consider if customers think our plan is affordable and how to get ready to start such a large programme of construction work.

Every five years we write a Business Plan and submit it to our regulator, Ofwat. They decide what charges we can collect from customer bills and what level of service we must provide customers with, in return.

The DWMP forms part of our Business Plan for 2025-30 and we need to submit this to Ofwat in October 2023.

Ofwat reviews our plans and gives us its final determination in December 2024.

We begin carrying out the plans we set out in the DWMP in April 2025.

NORTHUMBRIAN WATER *living water*

www.nwl.co.uk/DWMP
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