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# HOWDON TREATMENT WORKS UPGRADE

## PROJECT BACKGROUND

We're working hard to make sure we can continue to deliver a reliable and resilient wastewater service for our customers.

We are planning ahead and making the right long-term decisions so that we can meet the needs of our communities and environment now and in the future.

As part of this, we're upgrading Howdon Treatment Works to introduce the latest technology. This will mean we can continue to treat wastewater coming from North Tyneside, South Tyneside, Newcastle, Gateshead, and parts of Northumberland.

This upgrade will help us serve about one million customers, and more across the region will see the positive impact on the environment and river health, as we make progress to our goals to have the best rivers and beaches in the country; and have zero pollutions as a result of our operations.



**NORTHUMBRIAN**  
**WATER** *living water*

## OUR PROPOSALS

We plan to install two new pumping stations and an additional anaerobic digester to improve the resilience of our wastewater services.

Howdon Treatment Works has two onsite pumping stations which pump wastewater flows from the inlet of the works to the next stage of the treatment process. These pumping stations are almost 25 years old and it is a great time to replace with an upgraded technology. Northumbrian Water is committed to be net zero by 2027 and Howdon already contributes enormously to this. By installing an additional digester reduces the reliance on existing infrastructure and support our plan to produce over 100GWh renewable energy each year (enough to power 20,000 homes).

To help meet future demand for our services while taking care of our environment, we also plan to install a new side stream process, new final settlement tanks, a new UV treatment plant and additional storm tanks. These will be located on the former Chemson site, which we have recently acquired.

### **PHASE ONE 2022 - 2025:**

Demolition of derelict warehouses on the former Chemson site and construction of the new improved pumping stations on the existing Howdon site.

### **PHASE TWO 2025 - 2027:**

Construction of improved treatment processes across the treatment works.

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# WHY ARE WE DOING THIS NOW?

Since 2010, concerns have been raised regarding potential limits on new housing developments due to sewage pumping and treatment capacity within Tyneside. It is predicted that by 2030, we will exceed our permitted flow capacity allowed to be treated at Howdon.

If no action is taken, the area will not be able to accommodate its growing population and the increased volumes of wastewater coming into the treatment works.

Alternative locations for a new treatment site to divert any additional wastewater away from Howdon have been considered, but the only viable option is to upgrade the treatment works itself.

We have therefore decided that now is the time to invest in the upgrade and growth of treatment works to protect the quality of services to customers and the quality of our water environment for the future.

This will mean we will have increased capacity and new treatment processes to help sustainably treat wastewater coming into the site from surrounding areas.



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# CONSTRUCTION

We're working hard to make sure we can continue to deliver a reliable and resilient wastewater service for our customers.

We are planning ahead and making the right long-term decisions so that we can meet the needs of our communities and environment now and in the future.

The construction work will all take place within the existing Howdon site, and on the former-Chemson site. Our contractor will begin by demolishing the older assets and then constructing two new purpose-built pumping stations. Then a two-metre-wide and 550-metre-long trench will be excavated to accommodate a new sewage pipe.

Once the pumping stations are fully working, the construction of the other new treatment assets will begin. These will all be located within the former Chemson site.

Once the new assets are ready to use, landscaping will ensure that the site is visually improved. This is particularly important for the area on the Chemson site which currently comprises of derelict warehouses. As well as improving the riverside appearance, our planned demolition will significantly reduce the health and safety risk remaining within these buildings.

Testing these new assets before we put them into service is an important stage of construction. During this stage, we will fully test the plant to make sure that there is not any increase in odour. We know that this is important to people in the local area, and reducing odour impact has been carefully considered throughout the design, construction, testing and operational stages of this project.



# NEXT STEPS

## PHASE ONE

**AUTUMN 2022**

Design completed and planning application submitted

**SPRING 2023**

Contract award

**SUMMER 2023**

Demolition of derelict assets and Construction activities commence

**SPRING 2025**

Phase one commissioning complete

## PHASE TWO

**SPRING 2025**

Contract award

**SUMMER 2025**

Construction activities commence

**SPRING 2027**

Phase two commissioning complete



Image is for illustrative purposes only and is not derived from traditional landscape and visual methodology

