

## Phase 1 consultation

## Find out about

- The reasons for the upgrade
- The benefits of the upgrade
- What else we considered to meet the need

# Why we need the upgrade

We are proposing a major upgrade to Deephams Sewage Works in the London Borough of Enfield, north-east London.

We plan to develop an improved sewage treatment process, while continuing to treat the 209,000 cubic metres of sewage that arrives at the works each day. This can increase to over 1.3 million cubic metres during heavy rainfall – enough to fill 520 Olympic swimming pools.

This leaflet explains the need for the upgrade and the alternatives that we have considered.

## The need to upgrade Deephams Sewage Works

Sewage has been treated at the Deephams site in Edmonton since the 1870s. The Deephams Sewage Works that exists today was largely constructed in the 1950s and 1960s.

We need to upgrade the sewage works to significantly improve the quality of the treated wastewater that flows into the Salmon's Brook, a tributary of the River Lee. The need for this improvement comes from three European Directives: the Urban Waste Water Treatment Directive, the Freshwater Fish Directive and the Water Framework Directive.



The new quality standard for treated wastewater has been set by the Environment Agency and will be one of the most stringent in the country. The new standard means that we need to develop an improved sewage treatment process for the Deephams Sewage Works. The improvements in the quality of treated wastewater will enhance the quality of the water in the Salmon's Brook and a number of watercourses further downstream of the works, including the Pymmes Brook, Lee Navigation and the River Lee. The Environment Agency has estimated that meeting the new standard will improve approximately 26km of river, including 13km of the River Lee and Lee Navigation.

Despite this improvement, more will need to be done to reduce pollution entering local rivers in the area. This includes reducing the number of overflows into the rivers from sewers during heavy rainfall and finding properties whose drains have been wrongly connected to surface water drains rather than to sewers and stopping wastewater from these properties flowing into rivers. We are working with the Environment Agency and local authorities do deal with these issues as well and further improve river water quality in the area.

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As well as improving river water quality, we also need to increase the amount of sewage the works is able to treat so that it can cope with predicted population growth in the area. Deephams Sewage Works currently treats the sewage from about 885,000 people, and the upgraded sewage works will need to serve a future population of 941,000. This predicted growth is estimated from figures set out in the London Plan and the Development Plans of individual London boroughs and districts in the area. The proposed upgrade will allow the sewage works to cope with the additional sewage produced by this increase in the number of homes and businesses within the area it serves, as it will be designed to cope with population growth to at least 2031, and potentially beyond.

The third aspect of the need for the upgrade is to improve treatment facilities at the existing Deephams Sewage Works that are becoming old and worn out. Although improvements have been made to the sewage works since it was constructed, the treatment process is largely unchanged since it was first built in the 1950s and 1960s. The upgrade will be designed and built to modern standards and will be more energy-efficient and easier to manage and maintain. It will also be designed to take account of climate change, so that it can cope with the effects of the heavier winter rainfall and warmer summer temperatures that are forecast in the future.

Deephams Sewage Works currently treats the sewage from about **885,000** people



The new sewage works will need to serve a future population of

**941,000**

### Alternatives to the upgrade

We considered a wide range of alternatives when choosing the best option for achieving the required improvements in the quality of the treated wastewater that flows into the Salmon's Brook from Deephams Sewage Works.

These included:

- Transferring the sewage from Deephams Sewage Works or from part of the local sewer network to another existing or new sewage works further away for treatment
- Reducing the amount of sewage arriving at Deephams Sewage Works by helping rainwater to drain into the ground rather than straight into the sewers, and encouraging our customers to use water more wisely through increasing metering in the area
- Building sewage treatment facilities on a new site and considering the use of all potential sewage treatment technologies at different scales. This also included splitting the sewage treatment facilities between the existing sewage works and a new site
- Upgrading the existing sewage works within the current site boundary

The conclusion of this work was that the most appropriate options for delivering the necessary improvements in quality of the treated wastewater would be either through upgrading the treatment facilities at the existing Deephams site, or through building a new sewage works on a new site elsewhere.

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## Find out more

Visit our consultation website:

[www.deephamsconsultation.co.uk](http://www.deephamsconsultation.co.uk)

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