Future Trend: Landlocking

Trend definition and relevance to DWMP

Many of our major sewage treatment works are unable to expand because the land around them has already been developed for other uses – we refer to this as 'landlocking'. Similar, though to a lesser extent, space constraints also affect some of our pumping stations and balancing ponds (engineered storage areas that help manage surface water and reduce flood risk). While landlocking does not directly impact how we predict future system performance (using the DWMP Performance Indicators), it does affect the types of solutions we can develop in response to growth and to meet tighter regulatory requirements relating to wastewater discharge.

In response, our DWMP may need to consider more intensive treatment processes, the potential construction of new sewage treatment works to increase capacity, or the complete relocation of existing sites. In the past, sewage treatment has often been centralised in a small number of large facilities. However, landlocking may prevent further centralisation, alongside a shift towards more intensive treatment technologies.

Stage of DWMP used	
Risk assessment	✗
Plan development	✓
Impact/Importance	
Short term (2035)	High
Medium term (2045)	High
Long term (2055)	High
Example PIs affected by this trend	
Treatment works compliance (numeric)	
Treatment works compliance (dry weather flow)	
Treatment works compliance (flow-to-full treatment)	

Trend description, uncertainty and potential impact on our region

Landlocking around Beckton sewage treatment works

World Imagery [basemap]. Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community. Copyright © Esri 2026.

- The historical encroachment of development surrounding our sewage treatment works - particularly in London – has increasingly constrained our ability to expand site footprints, increase treatment capacity, and adapt assets to meet growing population demand and regulatory performance requirements.
- The photograph shows Beckton sewage treatment works in east London, which we operate as the largest sewage treatment works in Europe, spanning more than 250 acres. Progressive development surrounding the site over many decades has significantly restricted opportunities for further physical expansion, despite the strategic importance of the site within our wastewater network and continued growth across the wider catchment.
- This landlocking trend is ongoing and affecting our sites across both London and the Thames Valley, where increasing urbanisation, competing land use pressures, environmental constraints, and stakeholder sensitivities are creating growing challenges for the future expansion and adaptation of our critical wastewater infrastructure.