

# Spatial analysis for understanding and mitigating flood risk



THE ASSOCIATION  
FOR **GEOGRAPHIC**  
**INFORMATION**



## THE CHALLENGE

As the risk of flooding increases, understanding how climate change could affect its homes, properties, and estates is a key objective of Futures Housing Group's corporate plan.

Recognising which properties are at risk from flooding now and in the future will allow them to put measures in place to mitigate the effects of flooding. Open-source flood data can be searched on a property-by-property basis, but this approach is not feasible for a Housing Association with thousands of properties. The project scope was substantial and required a geospatial specialist.

## THE SOLUTION

A Cadcorp geospatial analyst was assigned to the project. The analyst loaded flood risk polygons for the area of interest into a spatial database alongside Futures' addresses. Concurrent spatial queries were run in Cadcorp SIS Desktop to identify current and future flood risk areas that each address fell within. Additional attributes were added to each address, including current and future flood risk from surface water, and current and future flood risk from rivers and the sea.

As Futures' business data includes Unique Property Reference Numbers (UPRNs), results can be easily integrated into its housing management system for further analysis.

An interactive map was created in Cadcorp SIS WebMap to provide all Futures employees with access to flood risk information. Users of the system can quickly search and filter results to identify properties and areas with a current or future risk of flooding.



*"We had the requirement to map flood risk across our stock to see which of our properties were at risk now, and which properties would be at risk in the future"*

James Dial  
Head of Sustainability & Asset Maximisation, Futures Housing Group



## THE OUTCOMES & BENEFITS

Futures has a deeper insight into which properties are currently at risk of flooding and which are likely to be at risk in the future.

The analysis is designed to be self-sufficient, allowing Futures staff to easily update it when revised flood risk data is available, ensuring that results are current and accurate.

*"The Cadcorp analysis has provided us with a much clearer understanding of both current and future flood risks. Now we can make more informed decisions when managing our property portfolio and supporting our residents"*

James Dial  
Head of Sustainability & Asset Maximisation, Futures Housing Group