

Spatial analysis for understanding and mitigating flood risk



Futures Housing Group (Futures) has been housing and supporting people and communities across the East Midlands for well over 15 years. It has more than 10,500 homes extending from Derbyshire down to the Daventry area and beyond.

CHALLENGE

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

"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

SOLUTION

An NEC 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 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 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 current or future risk of flooding.

OUTCOMES AND BENEFITS

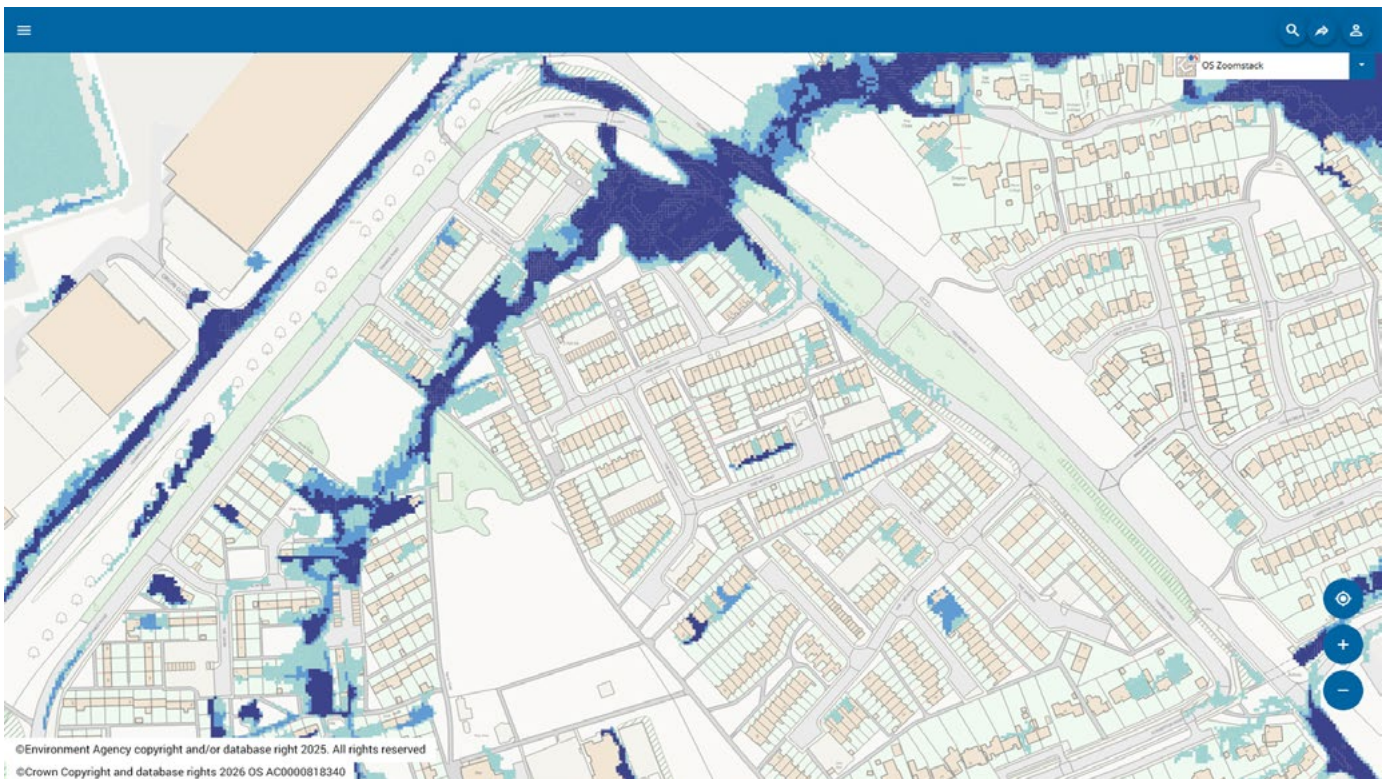
Futures has a deeper insight into which properties are currently at risk of flooding and which are likely to be at risk in the future.

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 NEC 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



For more information on the services NEC Software Solutions offers visit our website necsws.com or get in contact with us at marketing@necsws.com

