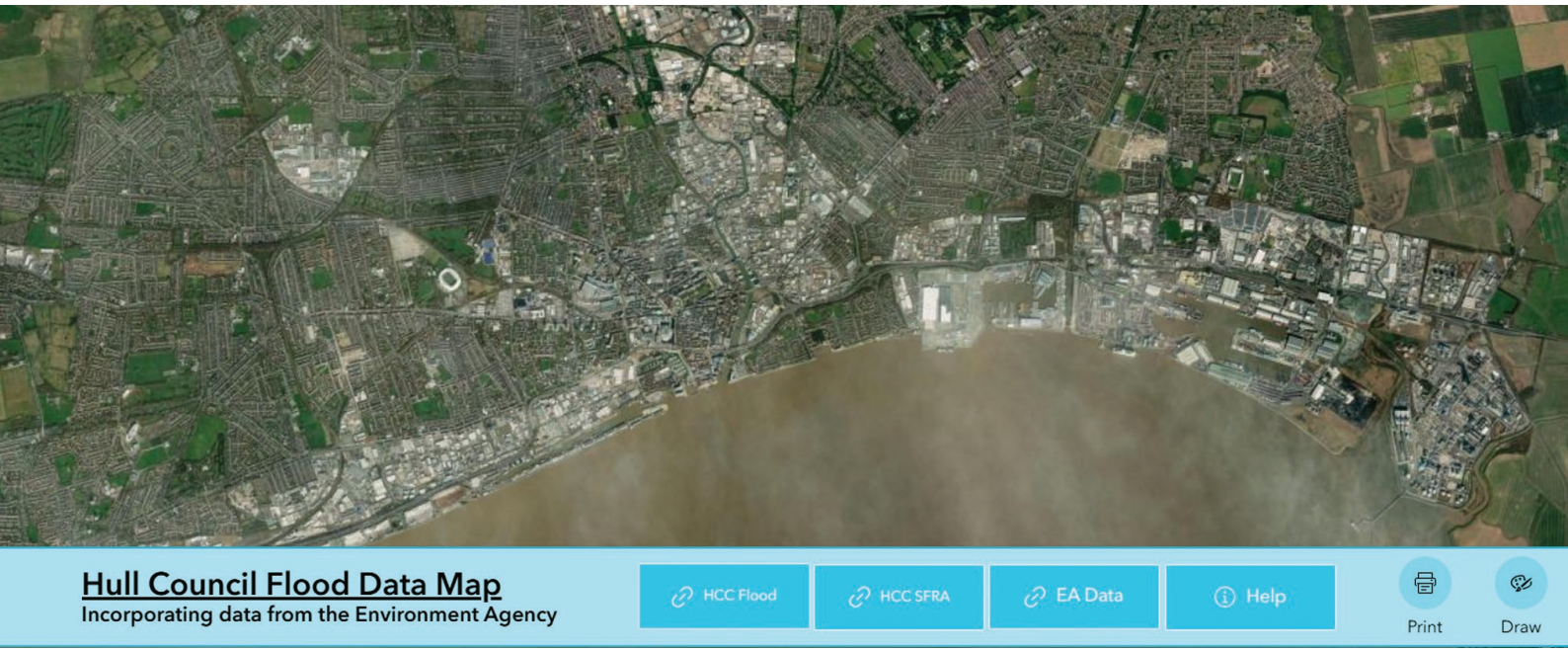
Case Study

Kingston upon Hull City Council



Client:

Kingston upon Hull City Council is the local authority for the city of Kingston upon Hull (generally known as Hull) in the ceremonial county of the East Riding of Yorkshire, England.

Industry:

Local Authority

Product:

Aerial Photography

"Hull City Council may not claim to be at the cutting edge of GIS technology, but we are far from behind the curve. We are committed to continuously strengthening our GIS capabilities and data assets, and access to resources from AGPB/Bluesky—such as high-quality aerial photography—is absolutely vital to our day-to-day operations.

Beyond the obvious benefits of cost and time savings, this data enables us to carry out innovative spatial tasks, such as GIS classification to identify greenspaces and tree or bush canopies, and leveraging NASA's SCP courses to successfully identify garages and driveways—supporting electric vehicle charging layouts and planning.

We also integrate this imagery with NUAR to gain a clearer understanding of assets and the scope of an area—often from the comfort of the office—before committing to costly site inspections. While aerial photography cannot provide the full picture, it has repeatedly given us the evidence needed to reject or redirect works to more practical locations.

The number of times aerial imagery has helped us solve complex GIS challenges cannot be overstated—it is an indispensable resource for delivering efficient, informed, and forward-thinking services."

Louis Johnston, Senior GIS Officer at Hull City Council

Summary:

Hull City Council is transforming its approach to asset management by integrating Bluesky's ultra-high-resolution 5cm aerial photography into both internal and public-facing mapping platforms. This photography is a critical tool, underpinning work across various departments, supporting planning, infrastructure, and public engagement, enabling accurate desktop assessments that both save time and improve communication.

Challenge:

Efficiently managing assets across multiple departments was a key challenge for Hull City Council, as resource intensive site visits to investigate queries and confirm changes were often required. For example, identifying ownership and maintenance responsibilities for overgrown green spaces was challenging as planning maps weren't always up-to-date or clear and with a lack of visual data this required officers to undertake time consuming site visits. Similarly, public queries about discrepancies with infrastructure assets like cycle tracks and footpaths were hard to verify without visual data. Monitoring changes to housing stock also posed a challenge. While new developments could be initially identified via street data, these maps lacked real world visuals and as a result, officers had to conduct site visits to verify new structures in-person, adding to the operational burden.

Aside from operational challenges, the council sought to improve communication externally with the community it serves. For this, members of the public needed a user-friendly, visual way to access data related to their homes and neighbourhoods.

Solution:

To address these challenges, Hull City Council integrated Bluesky's 5cm resolution aerial photography in both its internal mapping systems and its public-facing viewer. Made available through the Government's Digital Services APGB contract, this high-resolution aerial photography delivers a detailed and up-to-date visual of sites across the city, enabling staff to assess locations and conduct analysis remotely. This has significantly reduced the need for initial site visits, allowing officers to resolve issues directly from their desktops and gain a better understanding of a site before deciding to investigate it in-person.

The aerial photography has proved particularly valuable for planning enforcement, where teams can now conduct regular desktop reviews of housing stock to check for unplanned and illegal structures, something previously too resource intensive to do routinely via site visits alone.

Residents also benefit from a user-friendly externally accessible public viewer that allows them to explore their neighbourhoods through the high-resolution aerial photography, offering a far more familiar experience than street maps alone. The viewer provides easy access to local data, such as councillor information, parking zones, and planning applications, enhancing the experience for both new and long-standing residents.

The council is also seeking to derive additional value from the aerial photography in the future, building logic into QGIS to train and feed a model that can identify parking. This will provide insights into on-road versus off-road parking locations and facilitates informed planning decisions.

Results:

The integration of 5cm aerial photography has delivered transformative benefits across the council's operations. The ability to perform high-resolution desktop assessments has saved both time and resources without compromising accuracy. Officers can now respond to queries, such as disputes over land ownership and maintenance responsibilities, or public infrastructure discrepancies directly from their desktops using the up-to-date visual data to make informed decisions quickly and confidently. Asset management has also become more proactive, with regular reviews of housing stock allowing earlier identification of unreported developments and unauthorised structures. This enables the council to take timely action, either shutting down unauthorised developments or registering properties for council tax, reducing the risk of uncollected taxes.

Beyond operational efficiency, the public-facing viewer has given residents better access to visual information about their neighbourhoods, making it easier to understand and is especially helpful for those new to the area. By providing the aerial photography alongside local data such as planning applications and parking zones, residents can find answers to common queries themselves without needing to contact the council, helping to free-up staff time.

	Imagery Specification	
Resolution	**5cm**	**25cm**
Coverage	Great Britain	Great Britain
Accuracy XY	± 10cm rmse	± 30cm rmse
Formats	Include: JPG, TIFF, ECW	Include: JPG, TIFF, ECW
Standard Projection	British National Grid	British National Grid
Tile Size	1km x 1km (20,000 x 20,000 pixels)	1km x 1km (8,000 x 8,000 pixels)
Metadata	Gemini 2.3	Gemini 2.3

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