

### Caring for the nation's most special places

## National Trust

#### The Challenge

 Build an enterprise GIS platform and optimise its use to support the achievement of key priorities

#### The Benefits

- Greater preparedness for climate change
- Focused initiatives to improve nature
- Clear insight to enhance visitor experiences
- More equitable access to beautiful places
- Improved collaboration with partners

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The Esri globe and Esri products, services and trademarks mentioned are trademarks of Environmental Systems Research Institute, Inc. Other companies and products mentioned herein are the property of their respective trademark owners. For more than a decade, the National Trust has been using Esri's ArcGIS system enterprise-wide to help it care for precious historic properties, ancient monuments and natural environments. Used by employees, partners and volunteers, dozens of ArcGIS mobile apps, web-based solutions, dashboards and other tools are helping the Trust to address the challenges of climate change and make special places accessible to everyone, for ever.

#### The Challenge

When the National Trust first started using geographic information system (GIS) technology, it had a piecemeal approach, with different teams using a variety of desktop GIS packages. Then, in 2014, the Trust took the decision to adopt Esri's ArcGIS technology enterprise-wide to reduce the number of desktop licenses, improve data management and develop webbased GIS solutions. It was, at this time, poised to launch an ambitious ten year strategy for 2015-2025, and aimed to optimise the use of GIS to help it achieve key priorities, including 'making everyone welcome' and 'taking action on climate change'.

#### **The Solution**

The centralised deployment of Esri's ArcGIS system opened up lots of new opportunities for the National Trust. "Having a full suite of tools for the first time enabled the National Trust to expand GIS into a wider number of projects," explains Mark Roth, Senior GIS Data Manager at the National Trust. "The fact it is easier for us to store and share data and develop enterprise solutions has also been hugely beneficial."

Over more than ten years, the Trust has continually advanced its use of ArcGIS, developing a suite of mobile ArcGIS apps for rangers, ArcGIS Dashboards for monitoring organisational KPIs, crowd-sourcing data capture solutions for volunteers, ArcGIS StoryMaps to engage with the general public and more besides. The organisation has made particular use of ArcGIS Pro for data analysis, using it especially to research inequitable access to green spaces and plan new initiatives to improve sustainability. According to the Trust's Head of Data, Huw Davies, "The analytical capabilities we gained were a real game changer."

Today, the Trust is using ArcGIS in conjunction with artificial intelligence tools and remote sensing devices to capture more data, more consistently and gain insight into critical issues such as hedgerow loss, climate change and wildfire risks. "We can now make aerial imagery and remote sensing data available across the organisation in a consistent way," highlights Keith Challis, Remote Sensing Coordinator at the National Trust. "This means we can optimise the use of remote sensing to monitor change on a huge scale."

Throughout its journey with ArcGIS, the National Trust has benefited from expert support through Esri UK's Customer Advantage Programme and an Enhanced Support Agreement. "There are lots of ways of doing similar things with GIS technology, and it has been beneficial to have experts on hand who can guide us," reflects Ian Dawes, GIS Product Manager at the National Trust.

#### The Benefits

ArcGIS has played a pivotal role in helping the National Trust to deliver on the key ambitions set out in its 2015-2025 strategy. Notable benefits include:

#### Greater preparedness for climate change



# Having a full suite of tools for the first time enabled the National Trust to expand GIS into a wider number of projects.

Mark Roth, Senior GIS Data Manager, National Trust



Analysis conducted with ArcGIS Pro shows where members and paying customers go when visiting Flatford The National Trust has used ArcGIS to create a ground-breaking Hazard Map that shows local teams what climate change actually means for their properties and land and helps them to start planning realistic, purposeful mitigations. In addition, the Trust is currently piloting a wildfire detection system that uses ArcGIS Dashboards and remote sensors to alert operational teams when risk levels increase so they can respond more quickly to protect properties and land.

#### Focused initiatives to improve nature

By conducting advanced geospatial analysis with ArcGIS Pro, the Trust has been able to ascertain where, on its land, it can affect the biggest improvements to the state of nature. In its Riverlands project, for example, it is now focusing its resources in locations where it can make a real improvement to wildlife habitats. It is working to reconnect streams on Exmoor, improving conditions for eels, otters, bats and a pair of recently reintroduced beavers.

#### Clear insight to enhance visitor experiences

The Trust is increasingly using mobile ArcGIS apps and GPS data to gather information about what people enjoy doing, and it uses this insight to improve the visitor experience. For example, at Flatford in Suffolk, visitors were given GPS devices, and the data collected was analysed in ArcGIS Pro to better understand where people walk, what the most common routes are and where visitors spend most time. Outputs were used as part of the Experience Design process to help develop robust cases for future investments.

#### More equitable access to beautiful places

In line with its key priority 'for everyone, for ever', the Trust has undertaken ArcGISbased studies to better understand the proximity of properties and green spaces to people living in urban areas and, in particular, areas of deprivation. This research has underpinned initiatives such as the distribution of free single-use passes to encourage people from urban and deprived areas to visit their nearest National Trust property.

#### Improved collaboration with partners

By facilitating better data sharing and improved data analysis, ArcGIS is supporting key partnership projects including a 'green corridors' initiative with Sustrans that aims to improve sustainable access to special places like historic homes in and near towns. "Data is often the language of partnerships, so having a platform for sharing data and analysis of data with partners is exceptionally helpful," Davies explains.

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