

Case Study
Environment Agency

A large graphic of silhouettes of various trees and foliage in shades of gray and black, set against a white background. One tree on the right is highlighted in yellow. A yellow banner is at the bottom.

The Environment Agency uses Geocortex Essentials for
web-GIS to help inform decisions

About The Environment Agency

The Environment Agency is an executive non-departmental public body responsible to the Secretary of State for Environment, Food and Rural Affairs. Its principal aims are to protect and improve the environment and to promote sustainable development. It plays a central role in delivering the environmental priorities of central government through its functions and roles.

Overview

Following a procurement options appraisal, The Environment Agency selected Geocortex Essentials as part of its Strategic Mapping Platform and next generation EasiMap application. 1Spatial, the UK and Ireland reseller for Latitude Geographics, supplied Geocortex Essentials and helped the Environment Agency implement the EasiMap application.

EasiMap is the Environment Agency's primary web-GIS application, providing geographic information, comprehensive map and data navigation, querying and reporting, as well as a range of purpose-specific tools via a browser to internal users.

EasiMap will be available to 12,000 people around England through the Environment Agency. On average, over 3,000 people in the Environment Agency will log into the system via the internal intranet every day.

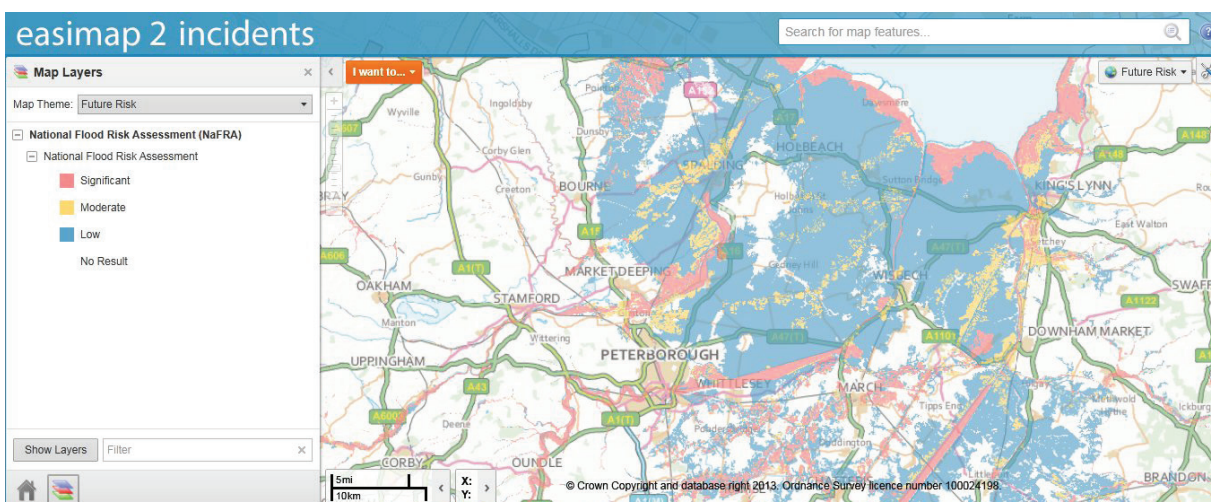
Faced with aging and increasingly less flexible web-GIS technology, the Environment Agency decided to upgrade its Esri based web-GIS applications and planned to implement Esri's ArcGIS for Server, so that it could publish map services to its web-based users. As a large and diverse organisation, the Environment Agency needed a solution that was very flexible, fast, and easy to use.

The solution needed to be capable of adding data quickly, especially in cases of incident management such as flooding and pollution, which require a fast response time but can be difficult to predict. It also had to be widely accessible and support data input from other organisations that the Environment Agency works with, including Defra and its various agencies, emergency services, and Ordnance Survey Great Britain.

The Environment Agency was looking for a commercial-off-the-shelf, out-of-the-box solution that complemented ArcGIS for Server by making the production of web-GIS applications easier, faster, more flexible, cheaper, and with less risk. It also wanted backwards and forwards compatibility to ensure that changes in the Esri platform and viewer technologies would be quickly available within the chosen product and would, therefore, have minimal impact on users, ensuring maximum benefit from its investment.

At the same time, the Environment Agency needed to be able to configure applications for ArcGIS for Server to meet its needs without having to undertake extensive, traditional programming. This was important so that it could reduce the need for developers and, instead, increase the capability for GIS and mapping experts to be able to produce web-GIS applications.

Fig. 1: *Easimap is used to visualise flood risk at national, regional and local scales.*



“ The agility of Geocortex is excellent and it is very easy to manage and configure. The fact that business or data people can configure EasiMap, as opposed to IT specialists is a real bonus to us. ”

Rob Jones, Head of Mapping and GIS, Environment Agency

Geocortex®

The solution

The Environment Agency selected platform-independent Geocortex Essentials to help transform how it is able to design, develop, and maintain its Esri web-GIS applications.

With Geocortex Essentials, the project gets a head-start by taking advantage of the huge amount of pre-built functionality the product provides. Environment Agency staff were able to implement the solution primarily through configuration rather than development by using pre-built Geocortex Essentials functionality.

This has allowed them to deliver the project in a timely manner, incur less risk and less cost. As well as being able to build business specific applications much faster than would otherwise have been the case. The Environment Agency is also able to provide its end users with a much more up-to-date, intuitive user experience.

Key benefits

Improved visualisation and access to the information:

- ▷ Clearer, more up-to-date mapping
- ▷ Simplified information, easier to understand
- ▷ Better use of third party data.

Improved sharing and collaboration using maps:

- ▷ Improved sharing and re-use of mapping capability
- ▷ Use of mapping to encourage collaboration and engagement.

More agile approach to responding to new or changing business needs:

- ▷ Highly configurable - easier and quicker to make changes to maps and user interfaces
- ▷ Reduced data management costs.

Improved visualisation of mapping for Flood Risk Mapping and Incident Management:

- ▷ Delivery of the Exercise Watermark recommendations
- ▷ Provided mapping to support the Better Tools Programme.

Improved mapping and information for National Permitting:

- ▷ Access to previously unavailable conservation data
- ▷ Faster turnaround of permits, reduced bureaucracy, increased efficiency.

Fig. 2: Local staff can record information about an incident, and share this easily with staff working in other offices or in incident control rooms.

The screenshot displays the 'Properties Flooded' form on the left and a map on the right. The form includes the following fields:

- Flooded or At Risk: **At Risk** (dropdown)
- No. of properties: **20** (text input)
- Date time recorded: **Friday, August 09, 2013 11:49 AM** (calendar and clock)
- Your name: **EA Field Worker** (text input)
- EA Region: (text input)
- Incident ID: **1234** (text input)
- Detail: (text input)
- Select Region: **Anglian** (dropdown)

Buttons for **Submit** and **Cancel** are at the bottom of the form. The map on the right shows a residential area with numerous red diamond markers indicating flooded properties. A scale bar at the bottom left indicates 100ft and 25m. The bottom right corner of the map area contains the text: 'Crown Copyright 2013. Ordnance Survey Licence number 100024198'.

Project summary

The new solution went into Beta test in July 2013 with a planned go live in Autumn 2013. This will then be rolled out to the 12,000 plus users.

The ability to quickly input and analyse data will provide the Environment Agency with an increased level of intelligence and measurable results on which to make decisions and support staff going out on site.

This is especially beneficial when dealing with emergency events such as flooding, where the Environment Agency needs to act extremely quickly and get a lot of information out to users.

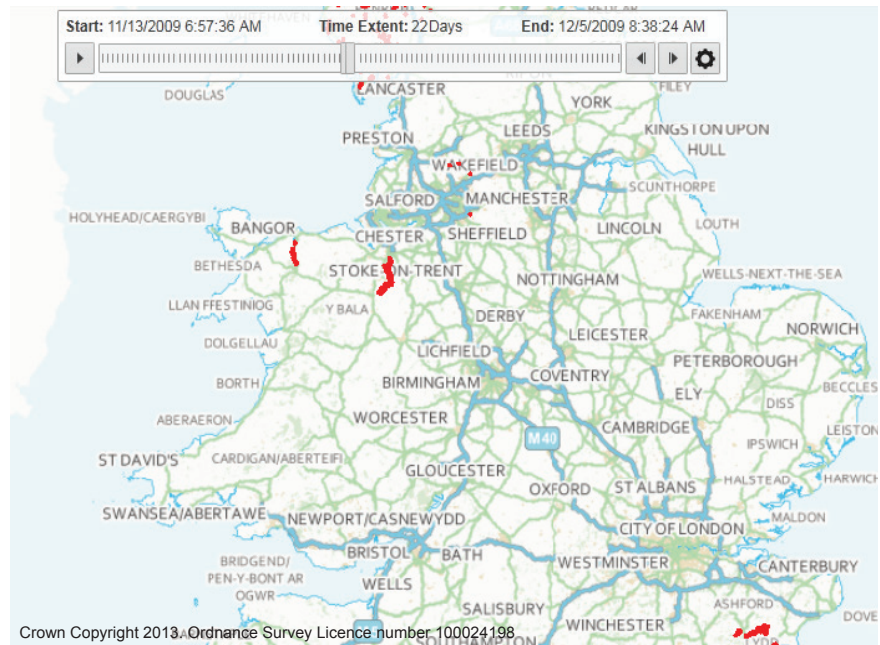


Fig. 3: Use of a “time slider” tool, which is used to visualise changes to data during incidents.

“The 1Spatial team have provided good support and helped us out with any problems. They have always communicated really well and have helped us with development where the solution needed to be customised for our needs. 1Spatial will provide ongoing support for the product.”

Rob Jones, Head of Mapping and GIS, Environment Agency

Future

The next phase of the project for the Environment Agency is on the mobile side, as the Geocortex Essentials HTML5 interface will enable the Environment Agency to provide fast and easy access to maps via smartphones, tablets, and desktop web browsers for both connected and disconnected in-field use.



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