

Case Study



NatureScot Peatland ACTION



Photo credit: R. J. Cooper - Peatland ACTION / LLTNPA

Client:

Peatland ACTION is the lead national programme to restore Scotland's degraded peatlands, aimed at reducing carbon and biodiversity loss. Funded by the Scottish Government's Climate Change Plan to net zero, it is a partnership delivered by NatureScot, Cairngorms National Park Authority, Loch Lomond & The Trossachs National Park Authority, Scottish Water, and Forestry and Land Scotland.

Industry:

Non-departmental public body

Product:

Aerial Photography & Digital Surface Model (DSM)

“*Peatland ACTION uses aerial photography and elevation data from APGB to help us design and deliver peatland restoration projects across Scotland. The elevation data provide us with a level of detail needed to more accurately identify erosion features and assess site hydrology, helping to predict project design costs and create more accurate project design maps for contractors to implement restoration work on the ground.*”

Jack Pocock, Peatland ACTION Project Officer at NatureScot



Summary:

Peatlands are one of Scotland's largest degraded ecosystems. When peatlands are degraded, they lose their ability to store carbon, support biodiversity, mitigate flood risk and improve water quality.

Peatland ACTION is leading the way in working with land managers to restore damaged peatlands for nature, communities and businesses. Funding primarily supports on-the-ground restoration activities and is open for applications from eligible landowners and managers who have peatlands that would benefit from restoration.

Challenge:

Healthy peatlands are vital for their ecosystem-services. However, Scotland's degraded peatlands are releasing carbon-rich peat into waterways and global warming CO₂ into the atmosphere. Peatland ACTION provides funding for restoration projects aimed at stabilising and maintaining the integrity of the carbon-rich peat.

Successful restoration relies on effective project design. But, identifying potential restoration features across Scotland's extensive and remote peatlands in the field can be both expensive and time-consuming.

Solution:

Using Bluesky's 12.5cm resolution aerial imagery and 25cm Digital Surface Model elevation data via the APGB download portal, offers an efficient and accurate desk-based method for Peatland ACTION project officers to identify, assess and map erosion features for restoration.

This quick and cost-effective approach enables the creation of precise restoration design maps for extensive and often remote areas. These maps facilitate collaboration with landowners for approval and guide machine operators in implementing restoration efforts on-site, ultimately supporting peatland conservation and management initiatives.

Results:

The use of Bluesky's elevation data improves project efficiency by enabling the quick and accurate creation of restoration design maps.

This data assists project officers in evaluating hydrology ensuring that restoration designs align with the hydrological context. It also leads to more accurate tendering costings and offers contractors a detailed overview for effective on-site restoration, with machine

operators confirming actions in the field.

Overall, this comprehensive information supports successful end-to-end project management; facilitating the review of project design, successful on-site delivery, and establishing a baseline for future monitoring, ensuring that restoration activities are accurately tracked and assessed for compliance and effectiveness.

	Aerial Photography	DSM
Resolution	12.5cm	25cm
Coverage	Great Britain	
Accuracy XY	± 30cm rmse	± 1m rmse
Accuracy Z	-	± 1m rmse
Formats	Include: JPG, TIFF, ECW	Include: ASCII Grid, ASCII XYZ, DXF Point, Geotiff
Standard Projection	British National Grid	
Tile Size	1km x 1km (8,000 x 8,000 pixels)	1km x 1km (4,000 x 4,000 pixels)
Metadata	Gemini 2.3	

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