

PEATLAND MANAGEMENT IN THE UK

What it is about

Peat is an important material within water collection basins both for water retention and its controlled release. Peatland makes up 12% of the total area of the UK but, unfortunately, 80% are in a poor condition. Rezatec, an EO service company, is using the free and open data from Sentinel-1 to derive

detailed maps showing the extent and depth of the peat across the moorlands and its condition. Water companies use these maps to identify where the peat quality is severely degraded to focus their investment where it can have maximum effect to restore the peat progressively to a much better condition.



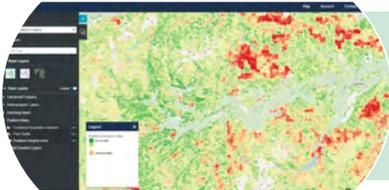
What we found

- Rezatec's Sentinel-1 derived peatland maps enable water companies to follow more targeted investments saving costs on energy and chemicals in water treatment works.
- Healthy peatland areas provide many non-financial benefits in the areas of climate, heritage and the environment. They reduce the risk of droughts in the summer and floods during heavy rains.
- On the basis of the maps, water companies have partnered with local farmers, land owners, wildlife/heritage trusts and government agencies to ensure the sustainable development of peatlands.



The Satellite Data

Copernicus Sentinel-1 provides free-of-charge frequent all-weather, day-and-night C-band radar images over the UK.



The Service Provider

UK EO company Rezatec produces detailed peatland maps showing the extent and depth of the peat across the moorlands and ecosystem integrity, land use and environmental risk for the water catchment areas.



The Primary User

Scottish Water and South-West Water use these maps to identify severely degraded peat. This enables them to focus their investment where it can have maximum effect. They save costs through the use of less energy and chemicals in the water treatment works due to leached peat.



Other Beneficiaries

Water companies collaborate with local farmers and landowners to reduce fertiliser and pesticides use and with other wildlife and heritage trusts to improve the landscape and its eco-system to create environmental gains for the local community.



End User Beneficiary

As consumers and customers, the general public and local businesses benefit naturally from better and more efficient water management. As both regions are tourist destinations, strong seasonal demands necessitate a secure water supply.

About the project

Through a series of case studies, EARSC aims to gather quantitative evidence that the usage of Copernicus Sentinel data provides an effective and convenient support to various market applications. These studies are undertaken in the frame of the project "Showcasing the benefits brought by the usage of Sentinels data to society, environment and

economy: a bottom-up assessment based on traceable impacts along selected value chains", under an assignment from the European Space Agency (ESA) funded by the European Union as part of the Copernicus Programme.

Download the full report from the project website



<http://earsc.org/sebs>

