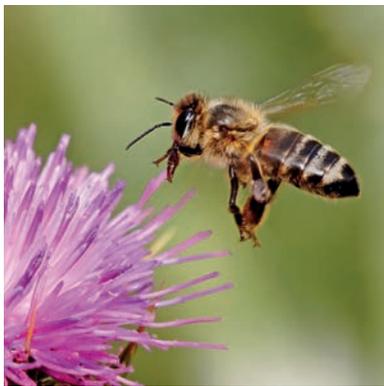


## Ecosystem Services Mapping

Environment Systems has developed the SENCE tool. This uses multiple datasets and scientific knowledge to model ecosystem services and produce maps and data. The maps show natural capital which is the existing value of the environment. SENCE modelling will also show the best places to enhance these services.



The starting point for SENCE is the Habitat Asset Register. This provides a structural habitat map in a GIS format linked to a table which shows how well the habitats provide the ecosystem services.

Using the Habitat Asset Register and information from key factors such as landform and hydrology we produce maps and apply further analysis to identify areas of land:

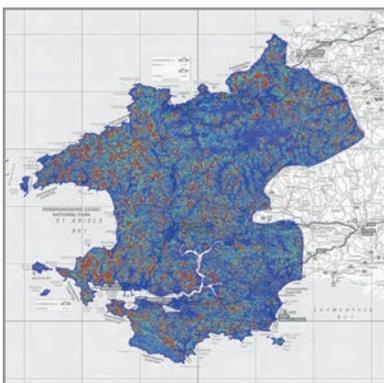
- That can provide opportunities to increase ecosystem services benefits
- Where land use management changes can result in benefits to multiple ecosystem services
- Where tradeoffs need to be discussed because one ecosystem service impacts another
- Where there are risks to ecosystem services



The resulting maps and GIS layers are used to inform an ecosystem or natural resource management approach to sustainable land management. The maps can be produced efficiently and rapidly; typically within a few weeks of provision of data.

SENCE maps and GIS layers can be used for:

- Supporting natural capital valuation
- Urban planning and development control
- Biodiversity planning
- Land use restoration for climate change and flood mitigation
- Natural resource management
- Strategic Environmental Assessment (SEA)
- Environmental Impact Assessment (EIA)
- To direct green infrastructure and strategic land use policy
- To encourage stakeholder engagement
- Environmental monitoring
- Natural heritage, social and cultural projects



## SENCE Basic

SENCE Basic products provide insight and greater understanding of natural capital. The outputs of SENCE Basic are:

- Habitat Asset Register
- Landform function
- Resilient ecological networks
- Ecosystem services risk assessment
- Mitigation & compensation opportunities

## SENCE Consultancy

SENCE works with the drivers and policies impacting the land to understand which ecosystem services are most valuable in your area. We will then provide a tailored set of maps which build understanding around:

- Biodiversity (incorporating ecological networks)
- Green infrastructure
- Blue (water) infrastructure
- Pollination
- Natural flood management
- Erosion risk management
- Water quality (sediment)
- Climate regulation - soil carbon
- Climate regulation - vegetated carbon

Outputs include reports and maps in the following formats:

- PDF
- GIS layers
- WMS

