



In 2012 Environment Systems created a new a habitat map of Anguilla. There was already some habitat mapping of the islands but it lacked detail and there was no baseline information of wetland (mangrove), limestone scrubland or particular species important to the islands' biodiversity. The new map was created from Earth Observation data, including satellite, aerial photography and field survey data.

The project also included a knowledge transfer and training element with key members of staff from the Anguillian Department of the Environment (DOE) and Department of Physical Planning (DPP) visiting Aberystwyth to gain a better understanding of the use of Earth Observation techniques and software.

This second phase includes the creation of a marine habitat map, the enhancement of the existing terrestrial study in specified areas and the development of ecosystem services mapping and habitat change mapping. WorldView satellite image data has been used to establish spectral differences across habitat types to refine the distribution mapping of the 'cactus garden', limestone thicket, dry forest habitats and to develop a classification to identify areas of suitable habitat for *Rondeletia anguillensis*, one of Anguilla's key endemic species. WorldView imagery has also been used to create a detailed bathymetric dataset to facilitate classification of the marine environment and produce a marine map of coral reefs, reef features, seagrass beds and other marine substrate classes.

Environment Systems will also leverage its established expertise in Ecosystem Services mapping to identify the islands' natural capital such as 'runoff' (water) and food production opportunities. As with Phase 1 there is a training element to the project focused on establishing spatial analysis across multiple departments of the Government of Anguilla using Open Source GIS software.

"This has been a brilliant opportunity for Environment Systems to stretch its habitat mapping knowledge beyond the UK," said Environment Director Dr Katie Medcalf. "The mapping we are

producing will enable the DOE and the DPP to make more definitive and comprehensive decisions regarding future land development and will assist in providing the evidence needed to enable natural capital planning to enhance the future of the islands. The mapping will also be shared with other agencies and across the Anguillian Government,” continued Medcalf.