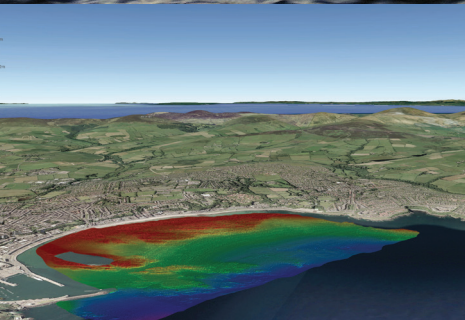


# CASE STUDY | ISLE OF MAN

MANX UTILITIES, 2018



## PROJECT SUMMARY

LandScope were instructed by Manx Utilities to undertake a high resolution multibeam bathymetry survey and an ADCP deployment, logging various water flow measurements over the course of a month, to aid the understanding of outfall discharge modelling at Douglas and Laxey Bay, Isle of Man.

## RESOURCES



### BATHYMETRY

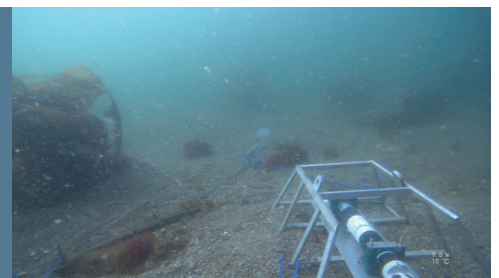
S.V. "Investigator"

R2Sonic 2020 multibeam echo sounder in conjunction with a 2INS (Applanix) inertial navigation system.

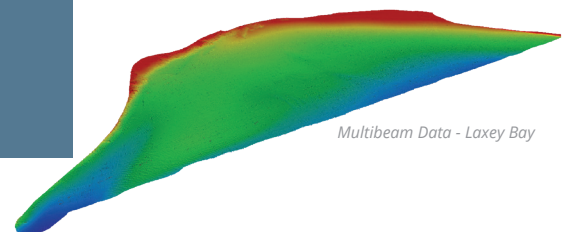


### ADCP

Two of Nortek Aquadopp Current Profiler (1MHz) - deployed from our survey vessel with dive team support and bed mounted with a custom frame for a period of 30 days.



Nortek ADCP Deployment



Multibeam Data - Laxey Bay

## PROJECT PHASES

- 1 PLANNING AND MOBILISATION
- 2 BATHYMETRY  
Multi-day bathymetry acquisition from S.V. "Investigator"
- 3 ADCP  
ADCP deployment and recovery with dive team assistance.
- 4 PROCESSING  
Modeling and data delivery.

## THE DETAIL

The road transportable survey vessel, Investigator, was towed to site and launched from the slipway, equipped with an R2Sonic 2020 multibeam echo sounder and Reson single beam echo sounder.

Position and vessel movement compensation was provided via an R2INS (Applanix) MRU. With consideration taken to the echo sounders' frequency, Hypack enabled simultaneous acquisition. The single beam data provided an additional quality check on the multibeam data.

With acquisition complete, a dive team was utilised to deploy two Nortek ADCP units to the sea bed. Rigorous planning combined with a professional dive team ensured secure deployment to the sea bed. Recovery of the units was completed efficiently after thirty days, and full data recovery was achieved.

The resultant combination of high resolution bathymetry on a 1m grid with tidal flow, direction and speed, supplied via the ADCP's, will provide a valuable modelling resource. The bathymetry was provided as an XYZ file, ensuring compatibility with all hydrographic and civil CAD software applications.