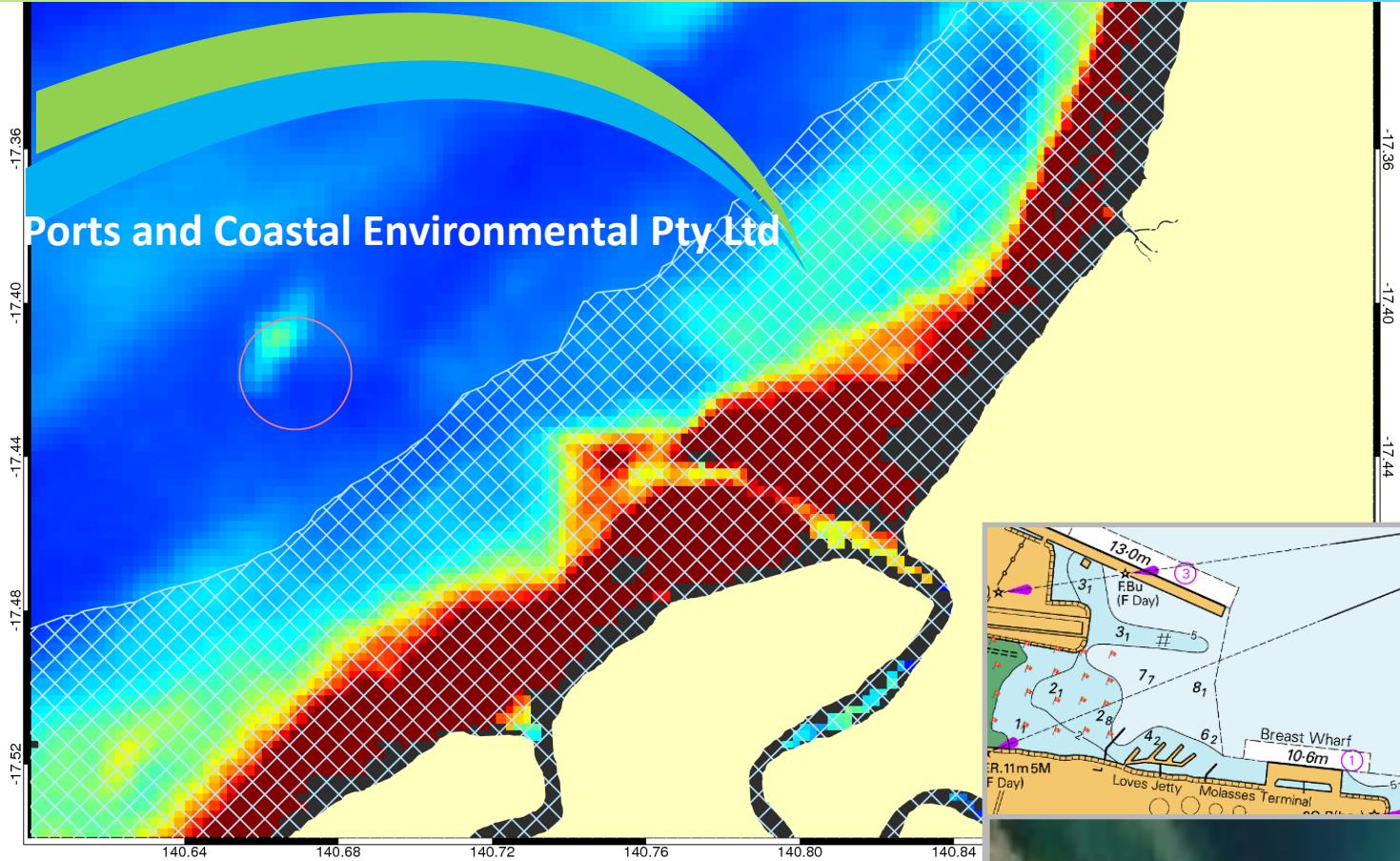


# MODIS Imagery—Spatial TSS Analysis



Daily or twice daily imagery is acquired from the MODIS Terra and Aqua spacecraft operated by NASA. The MODIS sensors capture medium resolution spectral imagery across the globe. Imagery can be reviewed as standard pictures, or analysed spectrally to determine features such as turbidity or total suspended solids (TSS).

PaCE acquire and analyse the MODIS imagery to define total suspend solids (TSS) concentrations. The calibrations between spectral signature and TSS are based on infield sampling over the Great Barrier Reef (site specific calibrations can be undertaken as required).

One of the key benefits in adopting MODIS imagery as an analytical tool is its ability to define spatial distributions in TSS. This is an important component in developing ambient water quality programs, or conducting *targeted* monitoring during events such as flooding, or coastal development activities such as dredging and disposal. Images can be sourced and analysed daily during a program, or selected from an extensive database.

TSS spatial modelling is also exportable to GIS platforms. Given sufficient replicate images, the GIS system can then be interrogated at different locations of interest, and an extended appreciation of TSS and the events that drive them can be formally assessed (wind speed, direction, season, flooding, wave action etc).