

Table 33 Hydro-optical Properties - Secchi Depth

	DATA OPTION 1: MERIS	DATA OPTION 2: Landsat ETM
<i>Spatial Dimensions</i>		
Area to cover	Swath width 572 km	185 km x 185 km per scene
Mapping unit	300 m	15 m panchromatic 30 m multi-spectral
Positional accuracy	Dependent on Geo-referencing process	Depends on level of Geo-referencing
<i>Temporal Dimensions</i>		
When	1030 hrs	Approx 09:45 am
How often	Every 3 days	Every 16 days
Variable to map	Secchi	Secchi
Environmental / Sensor Restrictions	Optically shallow areas Clouds, strong winds and breaking waves.	Optically shallow areas Clouds, strong winds and breaking waves.
Processing technique (Output)	Image based deterministic (inversion of radiative transfer model).	Image based deterministic (inversion of radiative transfer model).
Resources – Hardware and Software	PC Image processing software with Hyper-spectral analysis capabilities, including sub-pixel mapping techniques.	PC Image processing software GIS with image classification module (e.g. ARCGIS Image Analyst)
Resource – Personnel	Trained in hyper-spectral data processing. Knowledge of area to be mapped	Trained in image modelling Experience with Landsat data Knowledge of area to be mapped
References: Note these are some example references	Phinn et al. (2006)	Phinn et al. (2006)

Phinn, S. R., Roelfsema, C. M., Dekker, A., Brando, V., Anstee, J. M. & Daniel, P. (2006). *Remote sensing for coastal ecosystem indicators assessment and monitoring. Maps, techniques and error assessment for seagrass benthic habitat in Moreton Bay*. Coastal CRC Technical Report. Brisbane, Cooperative Research Centre for Coastal Zone, Estuary and Waterway Management: 117.

http://www.ozcoasts.org.au/pdf/CRC/76_Moreton_Bay_remote_sensing.pdf