

**Table 33 Hydro-optical Properties - Secchi Depth**

	<b>DATA OPTION 1: MERIS</b>	<b>DATA OPTION 2: Landsat ETM</b>
<b><i>Spatial Dimensions</i></b>		
<b>Area to cover</b>	Swath width 572 km	185 km x 185 km per scene
<b>Mapping unit</b>	300 m	15 m panchromatic 30 m multi-spectral
<b>Positional accuracy</b>	Dependent on Geo-referencing process	Depends on level of Geo-referencing
<b><i>Temporal Dimensions</i></b>		
<b>When</b>	1030 hrs	Approx 09:45 am
<b>How often</b>	Every 3 days	Every 16 days
<b>Variable to map</b>	Secchi	Secchi
<b>Environmental / Sensor Restrictions</b>	Optically shallow areas  Clouds, strong winds and breaking waves.	Optically shallow areas  Clouds, strong winds and breaking waves.
<b>Processing technique (Output)</b>	Image based deterministic (inversion of radiative transfer model).	Image based deterministic (inversion of radiative transfer model).
<b>Resources – Hardware and Software</b>	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)
<b>Resource – Personnel</b>	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
<b>References:</b> 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](http://www.ozcoasts.org.au/pdf/CRC/76_Moreton_Bay_remote_sensing.pdf)