

**Table 31 Riparian - Riparian zone width**

	<b>DATA OPTION 1: Quickbird 2</b>	<b>DATA OPTION 2: Airborne Laser Scanning</b>
<b><i>Spatial Dimensions</i></b>		
<b>Area to cover</b>	12km x 12km per scene	Can be up to 1000km <sup>2</sup> or more
<b>Mapping unit</b>	068m panchromatic 4.0m multi-spectral	0.5m to 10m
<b>Positional accuracy</b>	Dependent on geo-referencing process	Within 5m or less dependent on GPS base station used
<b><i>Temporal Dimensions</i></b>		
<b>When</b>	Approx 10.45am	User controlled
<b>How often</b>	Minimum every 4 days	User controlled
<b>Variable to map</b>	Riparian zone width	Riparian zone width
<b>Environmental Restrictions</b>	Cloud cover	Cloud cover
<b>Processing technique</b>	Riparian zone definition/ classification (Streambed classification plant projective cover, canopy height model, terrain slope)	Riparian zone definition/ classification (Streambed classification plant projective cover, canopy height model, terrain slope)
<b>(Output)</b>	Riparian zone width (raster or image surface)	Riparian zone width (raster or image surface)
<b>Resources – Hardware and Software</b>	PC Image processing software GIS with image classification module (e.g. ARCGIS Image Analyst)	PC Image processing software GIS with image analysis capabilities.
<b>Resource – Personnel</b>	Trained in image classification Experience with high spatial resolution data Knowledge of area to be mapped	Trained and with experience in ALS mapping. Knowledge of area to be mapped
<b>References:</b> Note these are some example references		Johansen et al. (2010)

Johansen, K., Arroyo, L. A., Armston, J., Phinn, S. and Witte, C. (2010). "Mapping riparian condition indicators in a sub-tropical savanna environment from discrete return LiDAR data using object-based image analysis." *Ecological Indicators*, 10(4), 796-807.