

Table 36 Riparian – Streambed width

	DATA OPTION 1: Airborne Laser Scanning
<i>Spatial Dimensions</i>	
Area to cover	Can be up to 1000km ² or more
Mapping unit	0.5m to 10m
Positional accuracy	Within 5m or less dependent on GPS base station used
<i>Temporal Dimensions</i>	
When	User controlled
How often	User controlled
Variable to map	Streambed width
Environmental Restrictions	Cloud cover
Processing technique	Streambed width mapping (object-based image analysis)
(Output)	Ground and canopy return extraction, interpolation and ground and canopy mapping (projected plant cover) over streambed. Raster or image surface of vegetation overhang
Resources – Hardware and Software	PC Image processing software GIS with image analysis capabilities.
Resource – Personnel	Trained and experienced in ALS mapping and object-based image analysis. Knowledge of area to be
References: Note these are some example references	Arroyo et al. (2010) Johansen et al. (2010)

Arroyo, L. A., Johansen, K., Armston, J. and Phinn, S. (2010). "Integration of LiDAR and QuickBird imagery for mapping riparian biophysical parameters and land cover types in Australian tropical savannas." Forest Ecology and Management, 259(3), 598-606.

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.