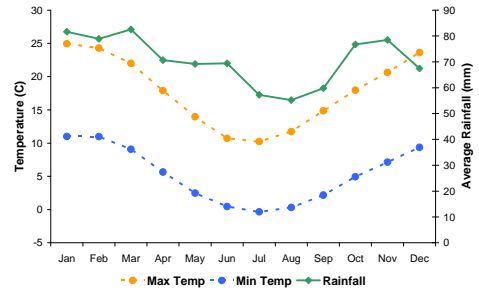


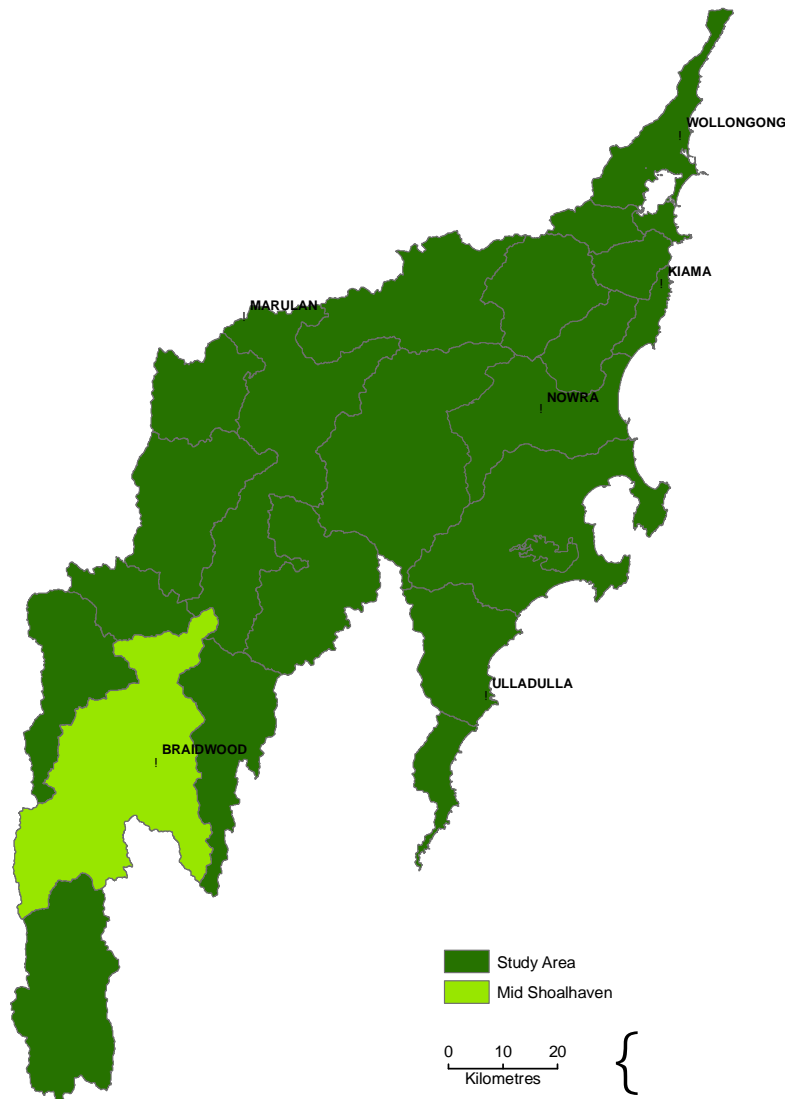
## Report Card - Mid-Shoalhaven

### General Information

<i>Sub-catchment size</i>	1080 km <sup>2</sup>
<i>Riparian landscape area</i>	56 km <sup>2</sup>
<i>Average annual rainfall range</i>	690-1210 mm
<i>Median annual rainfall</i>	840 mm
<i>Elevation range</i>	546 – 1353 m
<i>Sub-catchment stream length</i>	3764 km
<i>Analysis area stream length</i>	2809 km

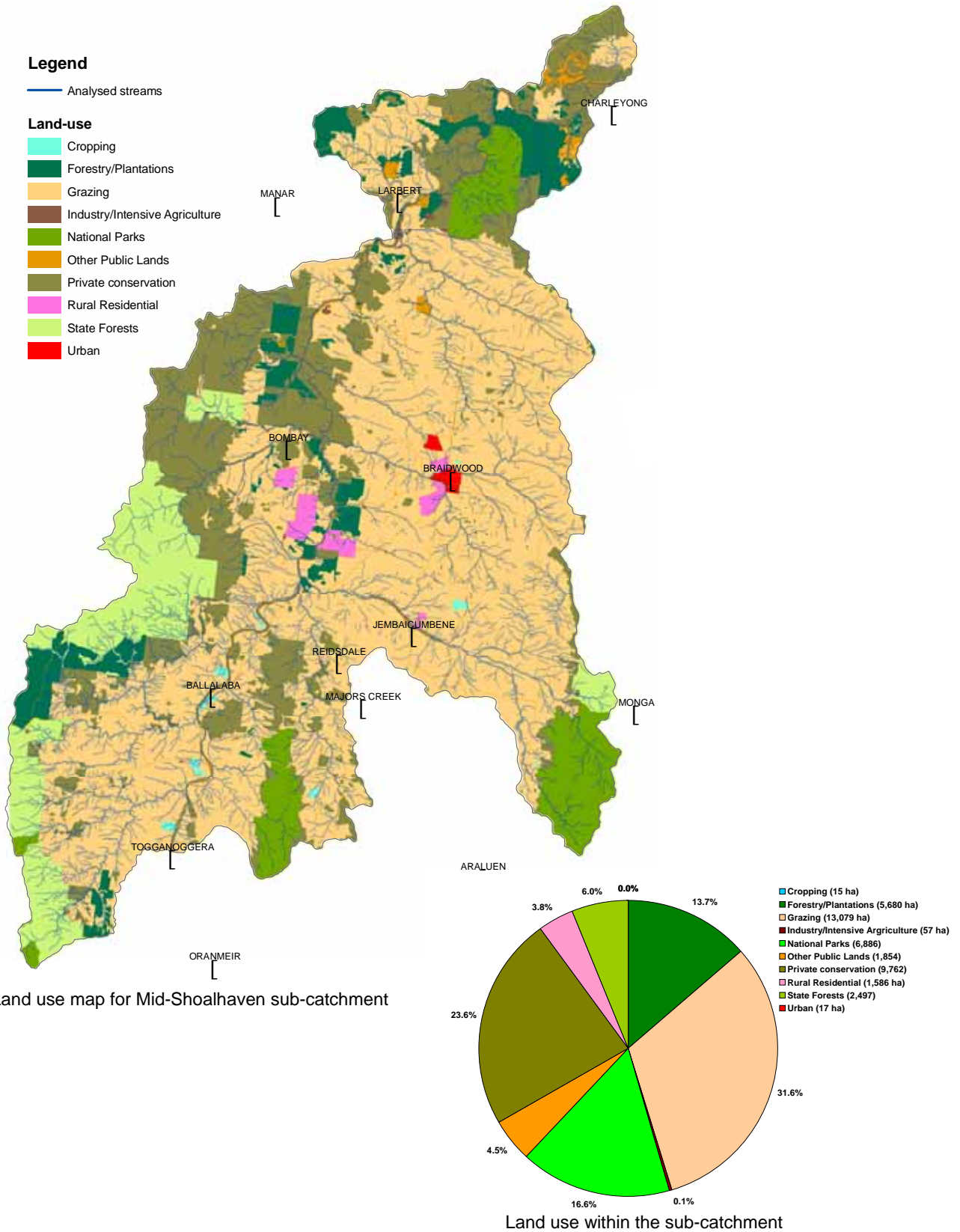


Average daily temperature and monthly rainfall data



Location of Mid-Shoalhaven sub-catchment within study area

## Land Use



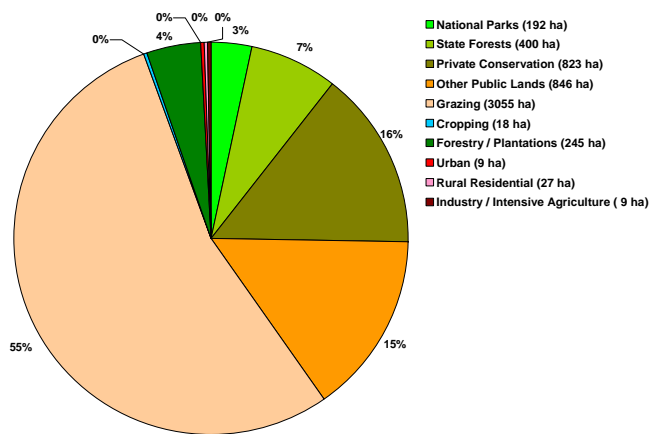
Land use map for Mid-Shoalhaven sub-catchment

Land use within the sub-catchment

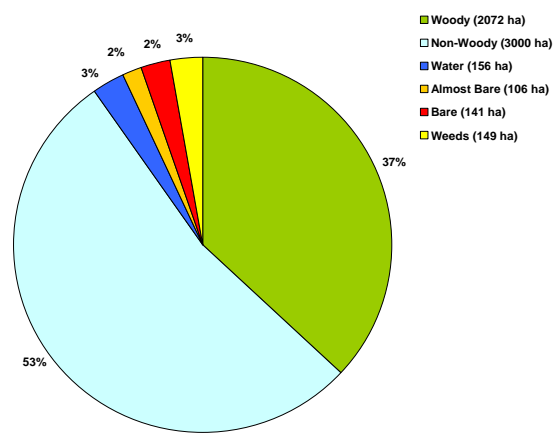
# Report Card

## Mid-Shoalhaven Riparian Zone Summary

- Grazing comprises the largest area (55%) within the riparian zone.
- Woody cover composes approximately 37% of the riparian area.
- On average a hectare of riparian area under grazing consist of 15 % woody cover. National Parks and State Forests average in excess of 94% and 98% respectively.
- Other Public Lands contribute by far the largest areas of Bare (in excess of 75%) within the riparian zone.
- Weeds compose 3% of the riparian area and approximately 62% of the weeds area is on the Grazing land use category.



Land use within the riparian zone



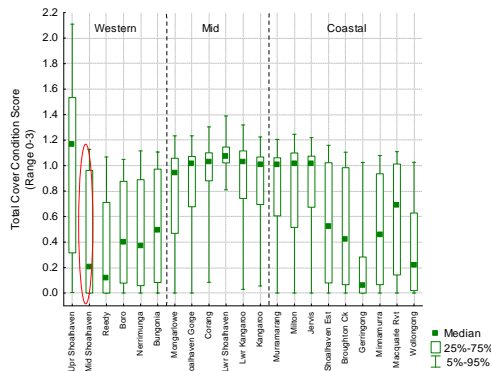
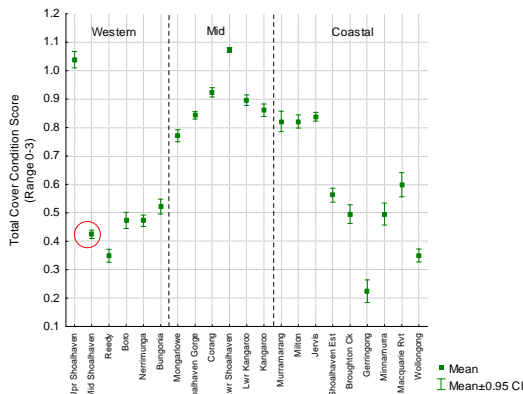
Land cover classes within the riparian zone

## Cover Class by land use within the riparian zone

Cover Class	Landuse	Conservation		Other Conservation		Agriculture			Other		
		National Parks	State Forests	Private Conservation	Other Public Lands	Grazing	Cropping	Forestry / Plantations	Urban	Rural Residential	Industry / Intensive Agriculture
Woody	Area (ha)	180.7	393.0	671.9	198.9	458.9	0.4	159.7	0.6	6.3	1.1
	% of Cover Class	8.7%	19.0%	32.4%	9.6%	22.2%	0.0%	7.7%	0.0%	0.3%	0.1%
Non-Woody	Area (ha)	6.7	6.3	118.9	329.5	2426.9	15.0	74.5	4.0	16.4	2.3
	% of Cover Class	0.2%	0.2%	4.0%	11.0%	80.9%	0.5%	2.5%	0.1%	0.5%	0.1%
Water	Area (ha)	2.4	0.1	12.4	120.4	16.5	0.1	3.1	0.0	0.2	0.4
	% of Cover Class	1.6%	0.1%	8.0%	77.3%	10.6%	0.1%	2.0%	0.0%	0.1%	0.3%
Almost Bare	Area (ha)	0.1	0.0	7.6	48.7	41.9	2.0	2.2	0.1	0.7	2.2
	% of Cover Class	0.1%	0.0%	7.2%	46.1%	39.7%	1.9%	2.1%	0.1%	0.7%	2.1%
Bare	Area (ha)	1.6	0.2	8.6	106.3	16.3	0.0	3.7	0.1	0.2	3.4
	% of Cover Class	1.1%	0.2%	6.1%	75.6%	11.6%	0.0%	2.6%	0.1%	0.1%	2.4%
Weeds	Area (ha)	0.2	0.0	3.6	41.8	94.0	0.3	1.9	4.1	3.5	0.0
	% of Cover Class	0.2%	0.0%	2.4%	28.0%	62.9%	0.2%	1.3%	2.8%	2.3%	0.0%

# Report Card - Woody cover

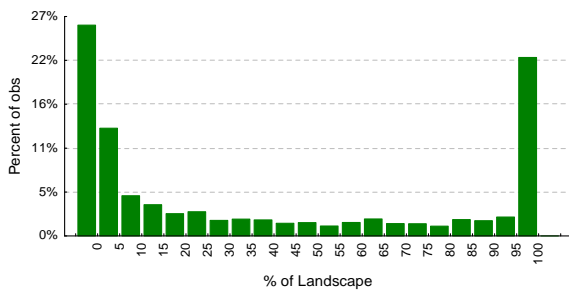
## Mid-Shoalhaven – Woody Cover



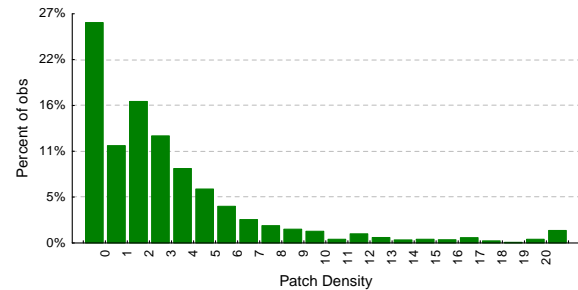
Overall Rank: 16/21  
 Zonal Rank: 5/6  
 (Ranks are based on Subcatchment Woody Cover Score)

Comparison of mean and median Woody cover scores across study area

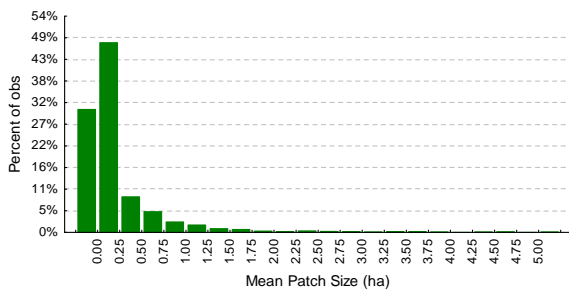
- The riparian zone in approximately 34% of the sub-catchment tiles, where woody vegetation cover is present, consists of between 50 and 100% woody cover, i.e. woody cover is very dominant in the riparian zones of these tiles. However, woody riparian cover is much less dominant in 50% of the sub-catchment tiles, where it consists of 20 % or less of the riparian area within a tile.
- The moderate values of the Patch Density graph indicate moderate fragmentation while the low values of the Mean Patch Size graph indicate that the woody riparian cover is grainy.



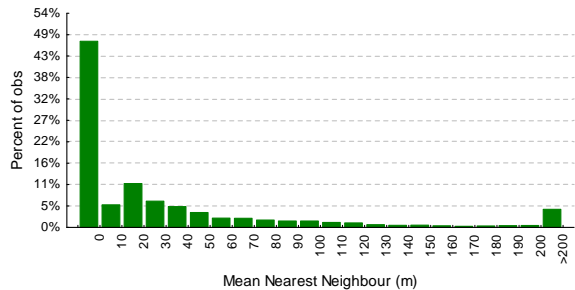
Distribution of the percentage of woody vegetation or **Percent of Landscape (PL)** within tiles in the riparian zones of the subcatchment.



Distribution of the woody vegetation Patch Density (ha) within tiles in the riparian zones.

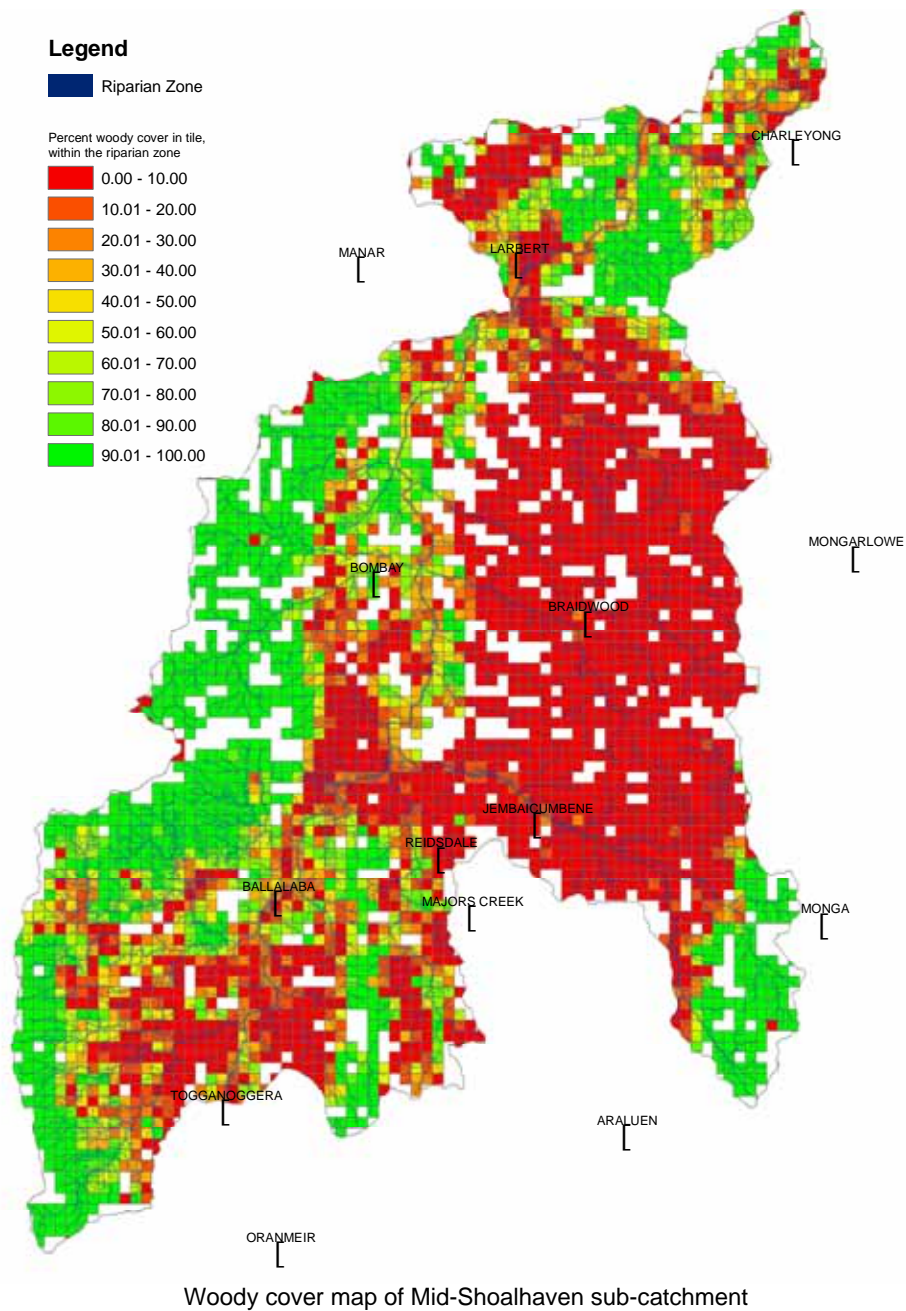


Distribution of mean patch size (ha) of woody vegetation in the riparian zones.



Distribution of the Mean Nearest Neighbour (Metres) distance between woody vegetation patches within tiles in the riparian zones.

# Report Card - Woody cover



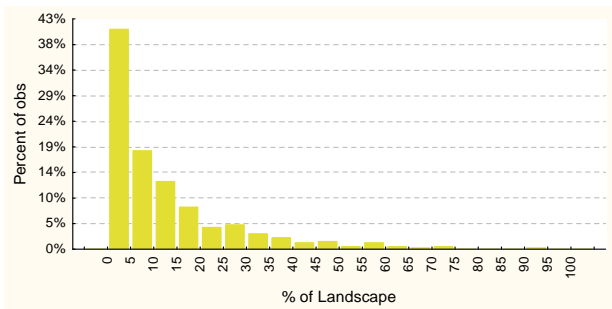
Woody cover map of Mid-Shoalhaven sub-catchment

- The central eastern and some southern parts of the sub-catchment have very patchy and sparse woody riparian cover. Grazing is the predominant land use in these areas.
- Woody riparian cover is more intact and dominant in National Parks and State Forests tenures along largely along the western parts of the sub-catchment and also to south east and northern parts of the sub-catchment.

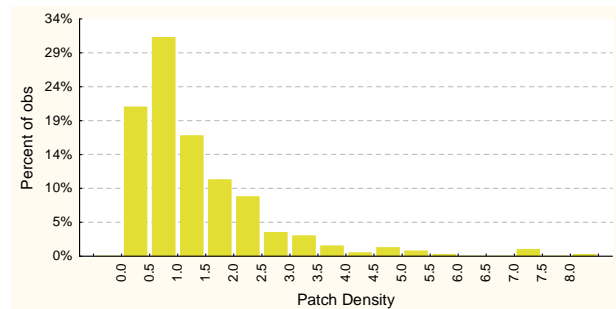
# Report Card - Weeds (Willows)

## Mid-Shoalhaven – Weeds (Willows)

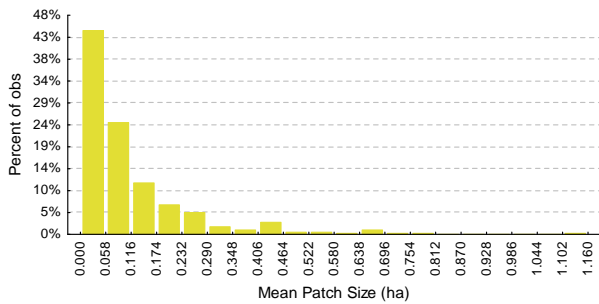
- The % of Landscape graph indicates that in weeds dominate (i.e. Weeds compose 50% or more of the riparian area within a grid tile) the riparian zones of a small number of tiles within in the sub-catchment.
- Weeds generally exist in relatively small patch sizes.



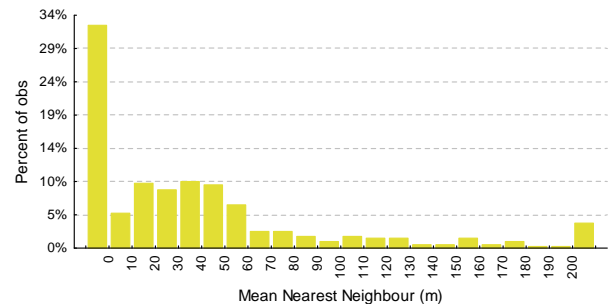
Distribution of the percentage of *Weeds* or **Percent of Landscape (PL)** within tiles in the riparian zone.



Distribution of the *Weeds* Patch Density (PD) within tiles in the riparian zones.



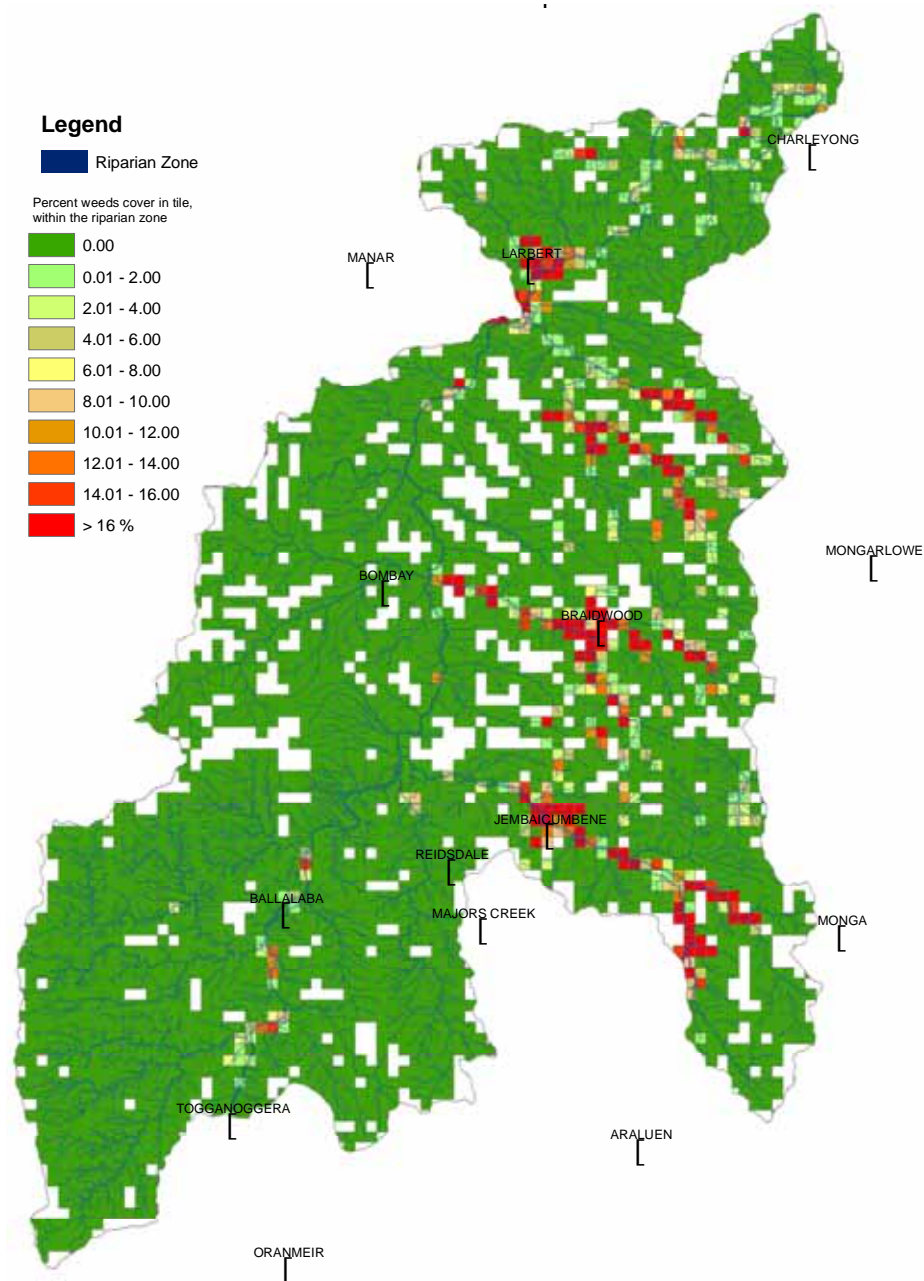
Distribution of mean patch size (ha) of weeds in the riparian zones.



Distribution of the Mean Nearest Neighbour (Metres) distance between *Weeds* patches within tiles in the riparian zones.

# Report Card - Weeds (Willows)

## Mid-Shoalhaven – Weeds (Willows)

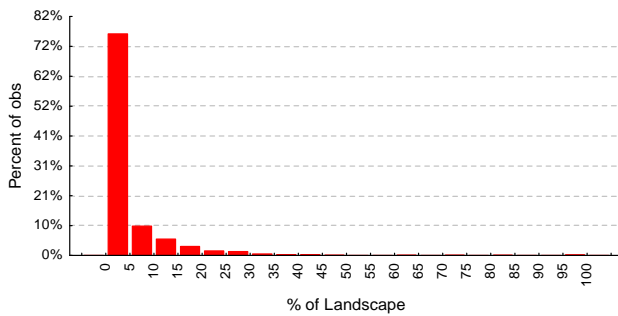


Weeds map of Mid-Shoalhaven sub-catchment

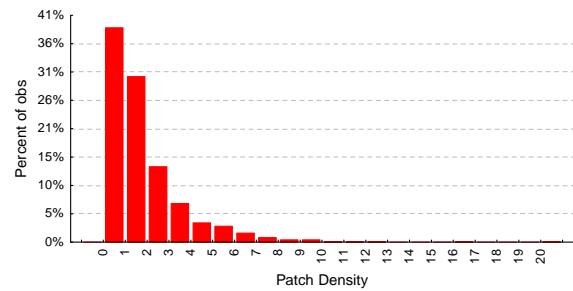
- Dense areas of weeds (mainly Willows) are widely distributed along the major tributaries of the Shoalhaven River on eastern part of the sub-catchment.
- The main trunk stream, the Shoalhaven River, also has dense weed areas at Lambert and relatively less dense areas of weeds on the northern and southern sections of the river.
- Weed areas are most prevalent in the grazing land use category.

## Mid-Shoalhaven – Bare

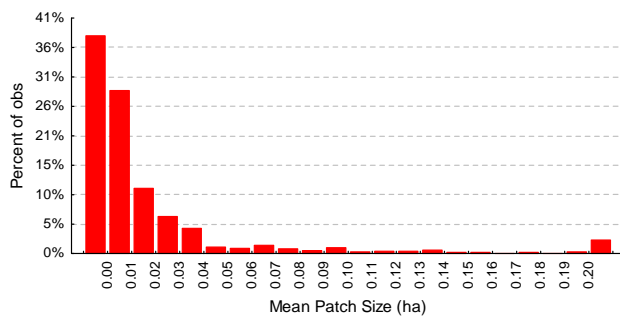
- The **% Landscape** graph shows that Bare areas generally do not dominate the riparian area in this sub-catchment. Where the Bare areas are present within tiles, they occupy 5% or less of the riparian zone in approximately 75% of the tiles.
- Bare areas are generally small as indicated by the Mean Patch Size graph.



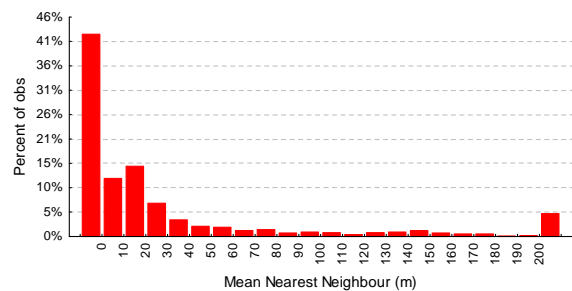
Distribution of the percentage of Bare area or Percent of Landscape (PL) within tiles in the riparian zones.



Distribution of the Bare Patch Density (PD) within tiles in the riparian zones.

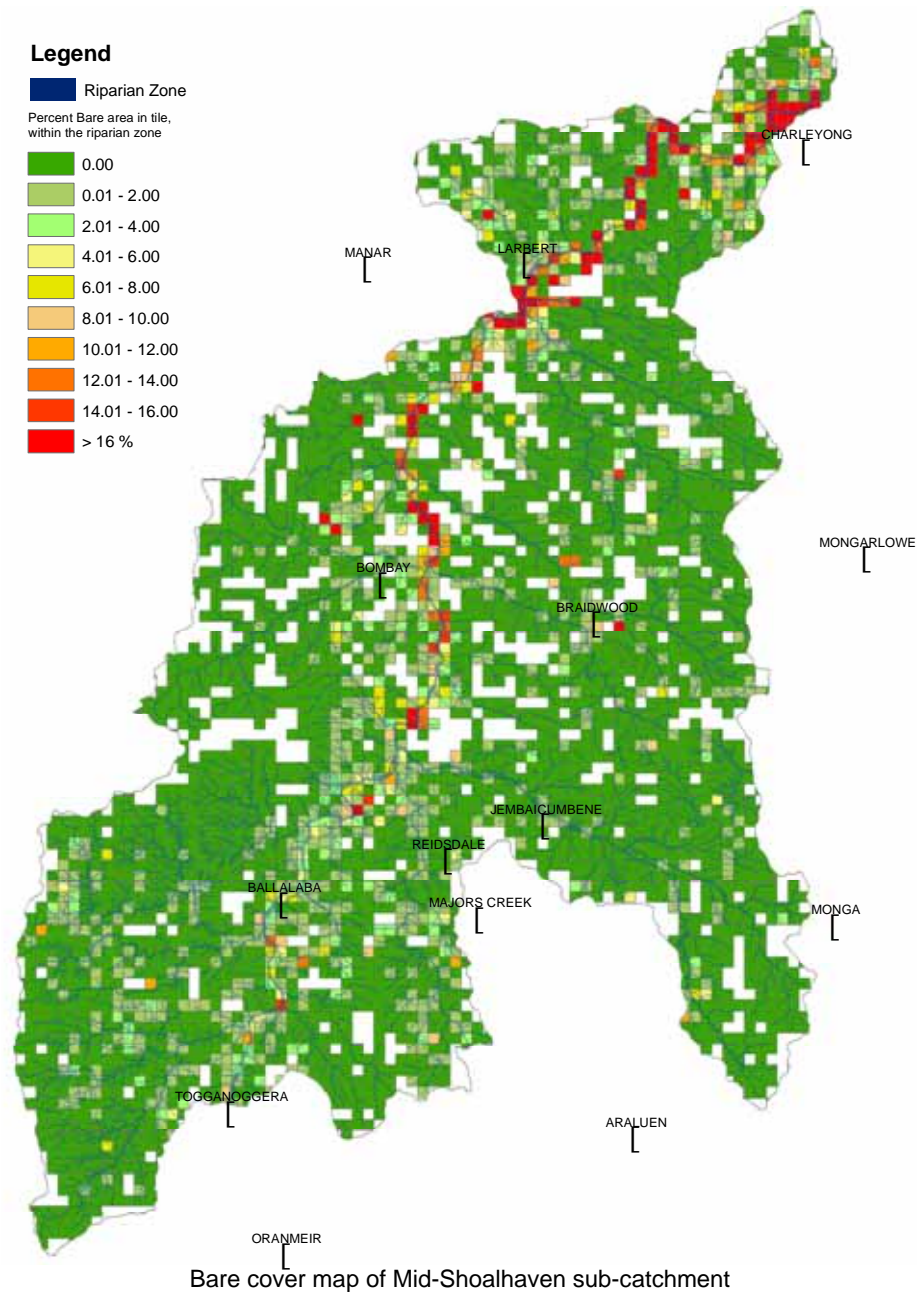


Distribution of mean patch size of Bare areas in the riparian zones.



Distribution of the Mean Nearest Neighbour (MNN) distance between Bare patches within tiles in the riparian zones.

## Mid-Shoalhaven – Bare

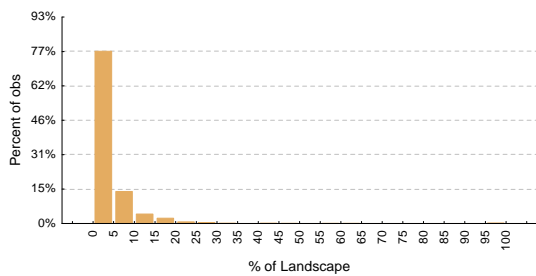


- The highest proportions of bare areas within the riparian zones occur along the Shoalhaven River where they largely consist of either deposited materials (sand and gravel) or exposed rock.

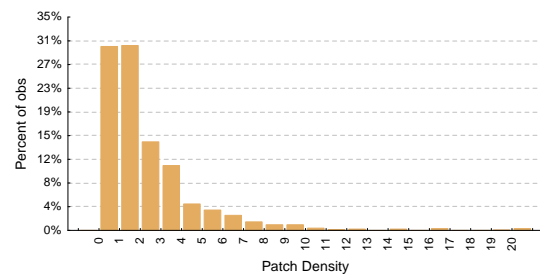
# Report Card - Almost Bare

## Mid-Shoalhaven – Almost Bare

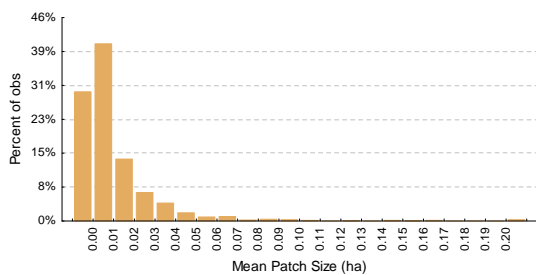
- The % **Landscape** graph shows that Almost Bare areas generally do not dominate the riparian area in this sub-catchment. Where the Almost Bare areas are present within tiles, they occupy 5% or less of the riparian zone in approximately 77% of the tiles.
- Almost Bare areas are generally small as indicated by the Mean Patch Size graph.



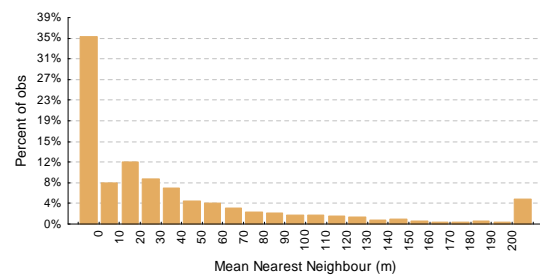
Distribution of the percentage of *Almost Bare* area or **Percent of Landscape (PL)** within tiles in the riparian zones.



Distribution of the *Almost Bare* Patch Density (Ha) within tiles in the riparian zones.



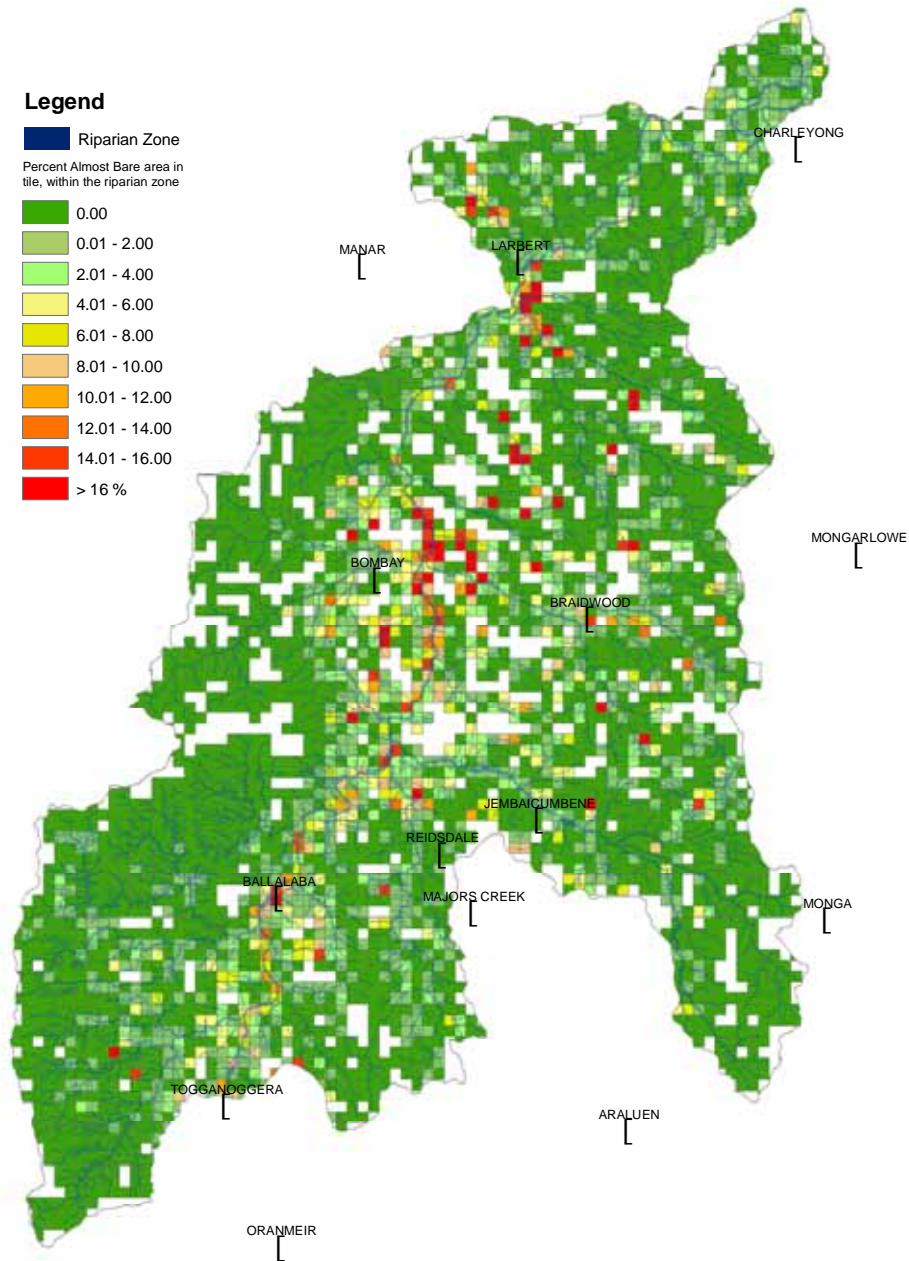
Distribution of mean patch size (Ha) of *Almost Bare* areas in the riparian zones.



Distribution of the Mean Nearest Neighbour (metres) distance between *Almost Bare* patches within tiles in the riparian zones.

# Report Card - Almost Bare

## Mid-Shoalhaven – Almost Bare



Almost Bare cover map of Mid-Shoalhaven sub-catchment

- Almost Bare areas exist predominantly in riparian zones where grazing is the main land use type.
- Almost Bare areas appear prevalent in the central parts of the sub-catchment.