



# Key Findings

## Regional Irrigated Land and Water Use Mapping in the Lake Wellington Catchment 2019/20

Irrigation land use and management practices in the Lake Wellington catchment are changing.

This is particularly the case in lowland irrigation areas around the Macalister Irrigation District (MID).

While dairy production remains the major irrigated agricultural land use, vegetable production (horticulture) is expanding and there is a general trend for larger and more intensive dairy farms.

Land use change from irrigated dairy and beef to horticulture is occurring throughout the catchment.

These changes may increase the challenges to environmental management by irrigators and have been considered by the Lake Wellington Land and Water Management Plan.

Prior to 2020 there was no reliable picture of irrigation land use within the Lake Wellington catchment. 2009 figures quoted here are based on observations by SRW field officers and should be viewed as well informed estimates rather than verified measurements.

In 2020, a land use mapping program was implemented to identify all areas of irrigation land use within the Lake Wellington catchment and monitor how this is changing.

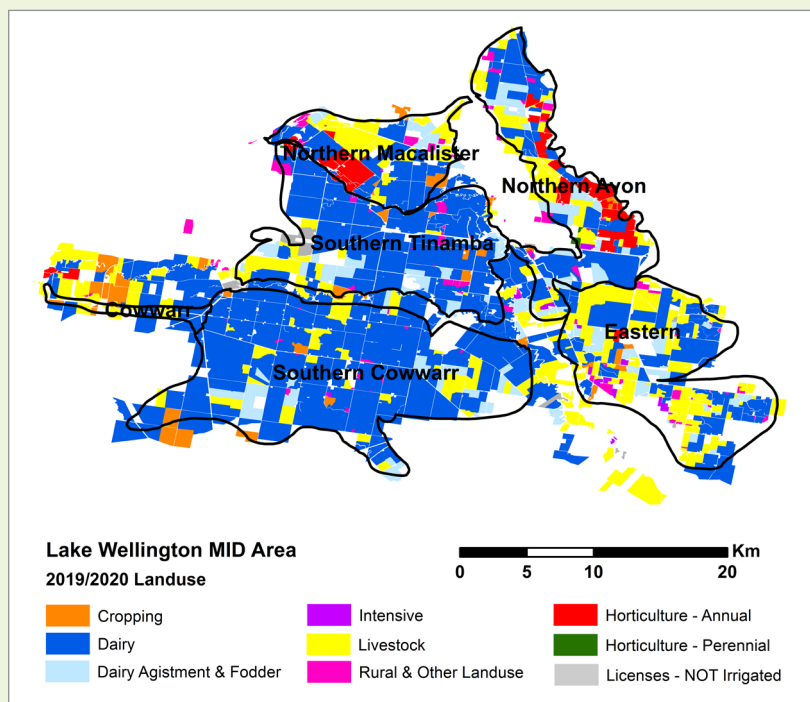
### Macalister Irrigation District Findings:

Dairy based enterprises made up the largest portion of land use in the MID in 2009/10 (45526 ha, 78%) and in 2019/20 (41024 ha, 70%). Whilst this is still the largest land use, it also displayed the largest decrease, 8%, between 2009/10 and 2019/20.

Livestock enterprises represented the second largest land use, 11346.80 ha (20%) in 2009/10, and 11578.81 ha (19%) in 2019/20.

Cropping (fodder and forage) and annual horticulture presented the largest increases from 2009/10 to 2019/20 (186 to 1903 ha and 533 to 1927 ha respectively).

*RIGHT: Figure 1. Land use in the Macalister Irrigation District 2019/20*



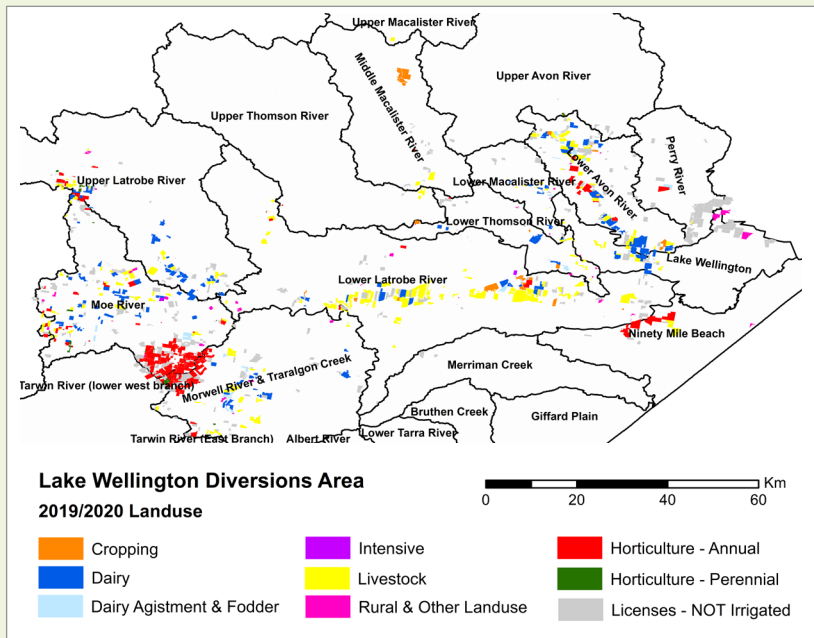


Primary Land Use	2009/2010 Area (ha)	2019/2020 Area (ha)	Changes in Area (ha)	Changes in Area (%)
Cropping	186	1903	1717	922.6
Dairy	45526	41024	-4502	-9.9
Annual Horticulture	533	1927	1394	261.5
Perennial Horticulture	51	51	0	0.0
Intensive Animal Industries	169	243	74	43.4
Livestock	11347	11579	232	2.0
Rural/Lifestyle and Other Landuse	432	1119	687	159.2
Licenses - NOT Irrigated		398	398	
<b>Total</b>	<b>58244</b>	<b>58244</b>		

**Lake Wellington Catchment (outside MID) Findings:**

Comparison of the land use in 2009/10 and that of 2019/20 suggests that the land use mix across the Lake Wellington catchment (outside the MID) has changed in area and distribution. The largest changes were in perennial horticulture (eg. permanent orchards, vines)(+43%) and cropping (+62%).

Livestock (+25%) and dairy (+12%) also showed increases of area, whereas annual horticulture (eg. vegetables) decreased in 2019/20 compared to 2009/10 by 13%.



*RIGHT: Figure 2. Landuse map of diversion licences in the Lake Wellington Catchment (not including Macalister Irrigation District)*

Primary Land Use	2009/2010 Area (ha)	2019/2020 Area (ha)	Changes in Area (ha)	Changes in Area (%)
Cropping	1187	1918	731	61.6
Dairy	10346	11597	1251	12.1
Annual Horticulture	12090	10516	-1574	-13.0
Perennial Horticulture	337	480	143	42.3
Intensive Animal Industries	135	135	0	0.0
Livestock	11205	14049	2844	25.4
Rural/Lifestyle and Other Landuse	1230	1414	184	14.9
Licenses - NOT Irrigated	22997	19419	-3579	-15.6
<b>Total</b>	<b>59528</b>	<b>59528</b>		

**Next Steps:**

This data informs regional economic development strategies, and industry and government responses to issues such as water policy, agricultural land use change and planning policy. Data will continue to be collected to help build our understanding of land and water use change.