Blackadder Creek was originally a natural creek but sections have been modified into a series of drains. It discharges into the Upper Swan Estuary, upstream of Ray Marshall Park in Midland. Just upstream of its confluence with the Swan Estuary, Blackadder Creek flows through a small area of floodplain wetlands, the Blackadder wetlands.

Most of the catchment has been cleared for urban residential use and very little remnant vegetation remains. Most of the intact bushland is in poor condition except for the regionally significant Talbot Brook Reserve which is in reasonably good condition. As most of the land adjoining Blackadder Creek is publicly owned, on-ground works are easier to undertake.

Soils in the catchment comprise shallow red and yellow earths on the Darling Scarp at the catchment’s eastern edge; gravelly and sandy acidic soils (Forrestfield and Guildford soils); and alluvial red and yellow soils to the west of the monitoring site. Depth to groundwater in the catchment ranges from about 0.5 to 3 m.

Water quality is monitored fortnightly at a site near Lloyd Street in Midland, about 450 m below the confluence of Blackadder and Woodbridge creeks. This site monitors what nutrients are leaving the upper catchment, but not the influence of nutrient sources between the sampling site and the confluence with the Swan Estuary. There is a closed landfill site downstream of the monitoring site next to the estuary, which may be affecting nutrient concentrations and contributing other pollutants.

### Nutrient summary: concentrations, rainfall and targets

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Annual rainfall (mm)</td>
<td>009225</td>
<td>807.8</td>
<td>607.2</td>
<td>503.8</td>
<td>860.8</td>
<td>608.2</td>
<td>782.4</td>
<td>674.4</td>
<td>617.8</td>
<td>715.8</td>
<td>854.0</td>
<td>741.6</td>
</tr>
<tr>
<td>TN median (mg/L)</td>
<td>SWN8</td>
<td>0.99</td>
<td>1.25*</td>
<td>1.25*</td>
<td>0.64</td>
<td>1.00</td>
<td>1.10*</td>
<td>0.73</td>
<td>0.93</td>
<td>0.74</td>
<td>0.84</td>
<td>0.74</td>
</tr>
<tr>
<td>TP median (mg/L)</td>
<td>SWN8</td>
<td>0.046</td>
<td>0.049</td>
<td>0.045</td>
<td>0.050</td>
<td>0.049</td>
<td>0.050</td>
<td>0.037</td>
<td>0.040</td>
<td>0.038</td>
<td>0.059</td>
<td>0.031</td>
</tr>
</tbody>
</table>

- **TN short term target** = 2.0 mg/L
- **TN long term target** = 1.0 mg/L
- **TP short term target** = 0.2 mg/L
- **TP long term target** = 0.1 mg/L

*Best estimate using available data.

**Insufficient data to test target**

**Failing both short and long-term target**

**Passing short but failing long-term target**

**Passing both short and long-term target**

*Statistical tests that account for the number of samples and large data variability are used for testing against targets on three years of winter data. Thus the annual median value can be above the target even when the site passes the target (or below the target when the site fails).