### ATTACHMENTS DISTRIBUTED UNDER SEPARATE COVER

**REPORTS**

**ITEM-51**  
CCL 28/06/16 - EXECUTIVE MONTHLY PERFORMANCE REPORT - MAY 2016  
- Attachment A

**ITEM-52**  
- Attachments A to D to be distributed under separate cover

**ITEM-57**  
CCL 28/06/16 - YOUNG STREET CARRINGTON STREETSCAPE UPGRADE EXHIBITION  
- Attachments A to D

**ITEM-59**  
CCL 28/06/16 - AMENDMENT TO DEVELOPMENT CONTROLS FOR THE NON-LEASED PARTS OF THE PORT OF NEWCASTLE - NEWCASTLE DEVELOPMENT CONTROL PLAN 2012  
- Attachment A

**ITEM-60**  
CCL 28/06/16 - AMENDMENT TO SECTION 7.06 STORMWATER - NEWCASTLE DEVELOPMENT CONTROL PLAN 2012  
- Attachments A to D

**ITEM-61**  
CCL 28/06/16 - HERITAGE CONSERVATION AREA REVIEW PROJECT  
- Attachments A to B
ORDINARY COUNCIL MEETING
28 JUNE 2016

CCL 28/06/16
EXECUTIVE MONTHLY PERFORMANCE REPORT - MAY 2016


DISTRIBUTED UNDER SEPARATE COVER
Financial Summary

Operating progress at a glance
Operating Analysis
Overall budget funding summary
Overall performance graphs

Financial Detail

Overall financial position by group
Executive Management overall financial position
Planning & Regulatory overall financial position
Corporate overall financial position
Infrastructure overall financial position
Rates Income Analysis
Debtors Report

Capital

Works Program Summary

Governance

Waiver of fees & charges schedule

Investments

Introduction
Investment Policy Compliance Report
Schedule of Investment movements for period ended 31 May 2016
Key Performance Indicator Compliance
Credit Risk Compliance
Credit Risk Compliance (continued)
Maturity Risk Compliance
Budget to Actual Interest Performance
Schedule of Investment movements for period ended 30 April 2016
Schedule of Investment movements for period ended 31 March 2016

Customer Services, Communications, Consultation Services & Records

Customer Service
### Operating progress at a Glance as at 31 May, 2016

#### Comments
- High development assessment income ($0.2m)
- Lower than budgeted spend on operational projects within destination marketing and community planning
- Above forecast income through on-street parking meters ($0.2m) and the Mall parking station ($0.1m)
- Lower than budgeted spend on training costs ($0.2m) and costs associated with Council's workers compensation commitments ($0.3m). Injuries to Council staff are down 41% compared with 2014/15 leading to lower costs.
- Above forecast income at Civic Theatre in addition to addition to timing differences at the Museum and Art Gallery caused as the exhibition expenses are realised late in the financial year
- There has been a delay in work forecast to be completed on NSW transport contracts.
- There is savings in employee costs whilst Council's recruits vacant project manager positions
- Lower than forecast spend on legal services ($0.3m)
- Positive financial result driven by a lower than forecast State Waste Levy ($0.4m)

<table>
<thead>
<tr>
<th>Department / Service Unit</th>
<th>Indicator</th>
<th>Comments</th>
<th>Variance ($,000)</th>
<th>Variance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Manager's Office</td>
<td>[Green]</td>
<td></td>
<td>41</td>
<td>-3%</td>
</tr>
<tr>
<td>Planning &amp; Regulatory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning &amp; Regulatory</td>
<td>[Green]</td>
<td></td>
<td>(1)</td>
<td>0%</td>
</tr>
<tr>
<td>Development &amp; Building</td>
<td>[Blue]</td>
<td>- High development assessment income ($0.2m)</td>
<td>444</td>
<td>40%</td>
</tr>
<tr>
<td>Strategic Planning</td>
<td>[Red]</td>
<td>- Lower than budgeted spend on operational projects within destination marketing and community planning</td>
<td>202</td>
<td>4%</td>
</tr>
<tr>
<td>Regulatory Services</td>
<td>[Green]</td>
<td>- Above forecast income through on-street parking meters ($0.2m) and the Mall parking station ($0.1m)</td>
<td>382</td>
<td>14%</td>
</tr>
<tr>
<td>Cultural Facilities</td>
<td>[Red]</td>
<td>- Above forecast income at Civic Theatre in addition to addition to timing differences at the Museum and Art Gallery caused as the exhibition expenses are realised late in the financial year</td>
<td>948</td>
<td>15%</td>
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<tr>
<td>Libraries</td>
<td>[Green]</td>
<td></td>
<td>(27)</td>
<td>0%</td>
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<tr>
<td>Corporate Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Services Director</td>
<td>[Green]</td>
<td></td>
<td>61</td>
<td>13%</td>
</tr>
<tr>
<td>Finance</td>
<td>[Green]</td>
<td></td>
<td>(68)</td>
<td>0%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>[Green]</td>
<td></td>
<td>55</td>
<td>1%</td>
</tr>
<tr>
<td>Human Resources</td>
<td>[Green]</td>
<td>- Lower than budgeted spend on training costs ($0.2m) and costs associated with Council's workers compensation commitments ($0.3m). Injuries to Council staff are down 41% compared with 2014/15 leading to lower costs.</td>
<td>435</td>
<td>7%</td>
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<tr>
<td>Commercial Property</td>
<td>[Green]</td>
<td></td>
<td>39</td>
<td>3%</td>
</tr>
<tr>
<td>Customer Service</td>
<td>[Green]</td>
<td></td>
<td>75</td>
<td>-3%</td>
</tr>
<tr>
<td>Communication and Engagement</td>
<td>[Red]</td>
<td>- Lower than budgeted spend on community consultation. The 2015/16 budget included an enlarged communications program which is currently being planned and resourced</td>
<td>210</td>
<td>-20%</td>
</tr>
<tr>
<td>Legal and Governance</td>
<td>[Blue]</td>
<td>- Lower than forecast spend on legal services ($0.3m)</td>
<td>432</td>
<td>-10%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure Director</td>
<td>[Green]</td>
<td></td>
<td>132</td>
<td>30%</td>
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<tr>
<td>Infrastructure Planning</td>
<td>[Green]</td>
<td></td>
<td>62</td>
<td>0%</td>
</tr>
<tr>
<td>Civil Works</td>
<td>[Orange]</td>
<td>- There has been a delay in work forecast to be completed on NSW transport contracts.</td>
<td>(277)</td>
<td>-1%</td>
</tr>
<tr>
<td>Projects and Contracts</td>
<td>[Green]</td>
<td>- There is savings in employee costs whilst Council's recruits vacant project manager positions</td>
<td>245</td>
<td>12%</td>
</tr>
<tr>
<td>Facilities &amp; Recreation</td>
<td>[Green]</td>
<td>- Lower than forecast spend on operational maintenance of buildings ($0.5m)</td>
<td>521</td>
<td>2%</td>
</tr>
<tr>
<td>Waste Management</td>
<td>[Green]</td>
<td>- Positive financial result driven by a lower than forecast State Waste Levy ($0.4m)</td>
<td>485</td>
<td>6%</td>
</tr>
</tbody>
</table>
## Operating Analysis as at 31 May, 2016

<table>
<thead>
<tr>
<th>Department / Service Unit</th>
<th>Indicator</th>
<th>Var ($'000)</th>
<th>Var(%)</th>
<th>Issue</th>
<th>Explanation</th>
</tr>
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<tbody>
<tr>
<td><strong>Operating Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rates and charges</td>
<td></td>
<td>0</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User charges &amp; fees</td>
<td></td>
<td>419</td>
<td>1%</td>
<td>0A assessment $0.2m</td>
<td>Development application assessment income ahead of budget</td>
</tr>
<tr>
<td>Interest</td>
<td></td>
<td>(6)</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other operating revenues</td>
<td></td>
<td>141</td>
<td>-1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants &amp; contributions - Operating</td>
<td></td>
<td>(109)</td>
<td>-1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operating Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee costs</td>
<td></td>
<td>(1,681)</td>
<td>-2%</td>
<td>Staff costs</td>
<td>Lower staff costs due to unfilled vacant positions in addition to lower than budgeted spending on training ($0.2m) and acquitting Council's workers compensation responsibilities ($0.3m)</td>
</tr>
<tr>
<td>Borrowing costs</td>
<td></td>
<td>101</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials &amp; contracts</td>
<td></td>
<td>(1,064)</td>
<td>-2%</td>
<td>Building maintenance ($0.5m), Operational projects ($0.7m)</td>
<td>Lower than forecast spend on the maintenance of buildings ($0.5m), in addition to operational projects within Cultural Facilities ($0.4m) and Strategic Planning ($0.3m)</td>
</tr>
<tr>
<td>Depreciation &amp; Amortisation</td>
<td></td>
<td>0</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other operating expenses</td>
<td></td>
<td>(711)</td>
<td>-2%</td>
<td>State Waste Levy ($0.4m)</td>
<td>Lower than forecast spend on the State Waste Levy at Summerhill Waste Management Facility</td>
</tr>
<tr>
<td>Net Loss from disposal of assets</td>
<td></td>
<td>(596)</td>
<td>-28%</td>
<td>Loss on write off of assets</td>
<td>Operational expense linked with the below budget delivery of asset renewal</td>
</tr>
</tbody>
</table>
## Overall Budget Funding Summary

**Result for the financial period ending 31 May, 2016**

<table>
<thead>
<tr>
<th>Full Year</th>
<th>Revised</th>
<th>Revised Budget $'000</th>
<th>YTD</th>
<th>YTD Actual Result $'000</th>
<th>Variance $'000</th>
<th>Variance %</th>
<th>Financial Impact +ve / -ve</th>
<th>Outstanding Commitments $'000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>137,126 Rates &amp; charges</td>
<td></td>
<td>126,570</td>
<td>126,570</td>
<td>0</td>
<td>0%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62,614 User charges &amp; fees</td>
<td></td>
<td>55,904</td>
<td>55,904</td>
<td>419</td>
<td>1%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9,607 Interest</td>
<td></td>
<td>8,785</td>
<td>8,785</td>
<td>(6)</td>
<td>0%</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td>10,400 Other operating revenues</td>
<td></td>
<td>10,059</td>
<td>10,059</td>
<td>141</td>
<td>1%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17,546 Grants &amp; contributions - Operating</td>
<td></td>
<td>15,456</td>
<td>15,456</td>
<td>(109)</td>
<td>-1%</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>237,293 Total Operating Revenue</strong></td>
<td></td>
<td><strong>216,329</strong></td>
<td><strong>216,774</strong></td>
<td><strong>445</strong></td>
<td>0%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operating Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>91,270 Employee costs</td>
<td></td>
<td>82,097</td>
<td>80,416</td>
<td>(1,681)</td>
<td>-2%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,074 Borrowing costs</td>
<td></td>
<td>3,733</td>
<td>3,834</td>
<td>101</td>
<td>3%</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td>51,015 Materials &amp; contracts</td>
<td></td>
<td>45,257</td>
<td>44,193</td>
<td>(1,064)</td>
<td>-2%</td>
<td>+</td>
<td></td>
<td></td>
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<tr>
<td>39,517 Depreciation &amp; amortisation</td>
<td></td>
<td>36,453</td>
<td>36,453</td>
<td>0</td>
<td>0%</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43,460 Other operating expenses</td>
<td></td>
<td>39,305</td>
<td>38,594</td>
<td>(711)</td>
<td>-2%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,309 Net Loss from disposal of assets</td>
<td></td>
<td>2,111</td>
<td>1,515</td>
<td>(596)</td>
<td>-28%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>231,645 Total Operating Expenses</strong></td>
<td></td>
<td><strong>208,956</strong></td>
<td><strong>205,005</strong></td>
<td><strong>(3,951)</strong></td>
<td>-2%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Operating Revenue Less Operating Expenditure</strong></td>
<td></td>
<td><strong>7,373</strong></td>
<td><strong>11,769</strong></td>
<td><strong>4,396</strong></td>
<td>60%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Capital Revenues</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37,585 Grants &amp; contributions - Capital</td>
<td></td>
<td>34,453</td>
<td>37,256</td>
<td>2,803</td>
<td>8%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16,500 Proceeds from the sale of Assets</td>
<td></td>
<td>15,125</td>
<td>11,729</td>
<td>(3,396)</td>
<td>-22%</td>
<td>-</td>
<td></td>
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</tr>
<tr>
<td><strong>54,085 Total Capital Raising revenue</strong></td>
<td></td>
<td><strong>49,578</strong></td>
<td><strong>48,985</strong></td>
<td><strong>(593)</strong></td>
<td>-1%</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>59,733 Net Surplus/(deficit) after capital revenue</strong></td>
<td></td>
<td><strong>56,951</strong></td>
<td><strong>60,754</strong></td>
<td><strong>3,803</strong></td>
<td>7%</td>
<td>+</td>
<td></td>
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<tr>
<td><strong>Adjustments for Non Cash Items</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39,517 Add back Depreciation</td>
<td></td>
<td>36,453</td>
<td>36,453</td>
<td>0</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(24,181) Less land &amp; infrastructure donations</td>
<td></td>
<td>(22,166)</td>
<td>(22,166)</td>
<td>0</td>
<td>0%</td>
<td></td>
<td></td>
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<tr>
<td><strong>75,069 Funding available for capital expenditure</strong></td>
<td></td>
<td><strong>71,238</strong></td>
<td><strong>75,041</strong></td>
<td><strong>3,803</strong></td>
<td>5%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Capital Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28,447 Asset renewals</td>
<td></td>
<td>24,553</td>
<td>17,811</td>
<td>(6,742)</td>
<td>-27%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30,876 New / upgrade</td>
<td></td>
<td>27,317</td>
<td>16,825</td>
<td>(10,492)</td>
<td>-38%</td>
<td>+</td>
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<tr>
<td>5,841 2012 SRV Priority Projects</td>
<td></td>
<td>4,984</td>
<td>3,024</td>
<td>(1,960)</td>
<td>-39%</td>
<td>+</td>
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<tr>
<td><strong>65,164 Total capital spend</strong></td>
<td></td>
<td><strong>56,854</strong></td>
<td><strong>37,660</strong></td>
<td><strong>(19,194)</strong></td>
<td>-34%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>7,305 Net Funds Generated / (Used)</strong></td>
<td></td>
<td><strong>12,001</strong></td>
<td><strong>34,998</strong></td>
<td><strong>22,997</strong></td>
<td>192%</td>
<td>+</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1 - Actual and Budget results include an estimate for the Newcastle Airport
Note 2 - Adopted Budget revised at the March Quarterly Budget Review
Overall Performance Graphs as at 31 May, 2016

Operating Revenues

Operating Expenditure

Capital Expenditure
## Operating Revenue

<table>
<thead>
<tr>
<th>Category</th>
<th>YTD Budget '000</th>
<th>YTD Actual '000</th>
<th>Var ($)</th>
<th>Var(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rates &amp; charges</td>
<td>1,101</td>
<td>1,101</td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>User charges &amp; fees</td>
<td>12,023</td>
<td>12,817</td>
<td>794</td>
<td>6%</td>
</tr>
<tr>
<td>Interest</td>
<td>8,479</td>
<td>8,473</td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Other operating revenues</td>
<td>4,540</td>
<td>4,216</td>
<td>324</td>
<td>8%</td>
</tr>
<tr>
<td>Grants &amp; contributions - Operating</td>
<td>1,880</td>
<td>1,797</td>
<td>83</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total Operating Revenue</strong></td>
<td>19,544</td>
<td>19,294</td>
<td>246</td>
<td>1%</td>
</tr>
</tbody>
</table>

## Operating Expenses

<table>
<thead>
<tr>
<th>Category</th>
<th>YTD Budget '000</th>
<th>YTD Actual '000</th>
<th>Var ($)</th>
<th>Var(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee costs</td>
<td>1,141</td>
<td>1,187</td>
<td>46</td>
<td>4%</td>
</tr>
<tr>
<td>Borrowing costs</td>
<td>2,495</td>
<td>2,596</td>
<td>101</td>
<td>4%</td>
</tr>
<tr>
<td>Materials &amp; contracts</td>
<td>314</td>
<td>220</td>
<td>94</td>
<td>30%</td>
</tr>
<tr>
<td>Depreciation &amp; amortisation</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>144</td>
<td>151</td>
<td>7</td>
<td>5%</td>
</tr>
<tr>
<td>Net Loss from disposal of assets</td>
<td>2,042</td>
<td>1,446</td>
<td>626</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Total Operating Expenses</strong></td>
<td>1,602</td>
<td>1,561</td>
<td>411</td>
<td>3%</td>
</tr>
</tbody>
</table>

## Total Operating Revenue Less Operating Expenditure

<table>
<thead>
<tr>
<th></th>
<th>YTD Budget '000</th>
<th>YTD Actual '000</th>
<th>Var ($)</th>
<th>Var(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1,602)</td>
<td>(1,561)</td>
<td>411</td>
<td>3%</td>
</tr>
</tbody>
</table>

For the month ending 31 May, 2016

Newcastle City Council

Executive Management

Planning & Regulatory

Corporate Services

Infrastructure

Airport

The City of Newcastle
### Operating Revenue

<table>
<thead>
<tr>
<th>Category</th>
<th>YTD Budget '$'000</th>
<th>YTD Actual '$'000</th>
<th>Var ($)</th>
<th>Var(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rates &amp; charges</td>
<td>1,101</td>
<td>1,101</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>User charges &amp; fees</td>
<td>3,006</td>
<td>3,389</td>
<td>383</td>
<td>12%</td>
</tr>
<tr>
<td>Interest</td>
<td>0</td>
<td></td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Other operating revenues</td>
<td>1,242</td>
<td>1,062</td>
<td>49</td>
<td>1%</td>
</tr>
<tr>
<td>Grants &amp; contributions - Operating</td>
<td>1,242</td>
<td>1,062</td>
<td>49</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Total Operating Revenue</strong></td>
<td>6,595</td>
<td>6,777</td>
<td>182</td>
<td>3%</td>
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</table>

### Operating Expenses

<table>
<thead>
<tr>
<th>Category</th>
<th>YTD Budget '$'000</th>
<th>YTD Actual '$'000</th>
<th>Var ($)</th>
<th>Var(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee costs</td>
<td>336</td>
<td>340</td>
<td>4</td>
<td>1%</td>
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<tr>
<td>Borrowing costs</td>
<td>0</td>
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<td>0%</td>
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<tr>
<td>Materials &amp; contracts</td>
<td>1,181</td>
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<tr>
<td>Depreciation &amp; amortisation</td>
<td>53</td>
<td>58</td>
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<tr>
<td>Other operating expenses</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>1%</td>
</tr>
<tr>
<td>Net Loss from disposal of assets</td>
<td>3</td>
<td>3</td>
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<tr>
<td><strong>Total Operating Expenses</strong></td>
<td>4,108</td>
<td>4,047</td>
<td>61</td>
<td>1%</td>
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### Total Operating Revenue Less Operating Expenditure

<table>
<thead>
<tr>
<th>Category</th>
<th>YTD Budget '$'000</th>
<th>YTD Actual '$'000</th>
<th>Var ($)</th>
<th>Var(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Operating Revenue Less Operating Expenditure</strong></td>
<td>(357)</td>
<td>(358)</td>
<td>(1,005)</td>
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### Corporate Services

#### For the month ending 31 May, 2016

<table>
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<tr>
<th>Source</th>
<th>Director YTD Budget $'000</th>
<th>Director YTD Actual $'000</th>
<th>Finance YTD Budget $'000</th>
<th>Finance YTD Actual $'000</th>
<th>Information Tech. YTD Budget $'000</th>
<th>Information Tech. YTD Actual $'000</th>
<th>Human Resources YTD Budget $'000</th>
<th>Human Resources YTD Actual $'000</th>
<th>Commercial Property YTD Budget $'000</th>
<th>Commercial Property YTD Actual $'000</th>
<th>Customer Service YTD Budget $'000</th>
<th>Customer Service YTD Actual $'000</th>
<th>Communication &amp; Engagement YTD Budget $'000</th>
<th>Communication &amp; Engagement YTD Actual $'000</th>
<th>Legal &amp; Governance YTD Budget $'000</th>
<th>Legal &amp; Governance YTD Actual $'000</th>
<th>Corporate Services YTD Budget $'000</th>
<th>Corporate Services YTD Actual $'000</th>
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<tr>
<td>(461)</td>
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</tr>
<tr>
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<td>YTD Budget $'000</td>
<td>YTD Actual $'000</td>
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<td>YTD Actual $'000</td>
<td>YTD Budget $'000</td>
<td>YTD Actual $'000</td>
<td>YTD Budget $'000</td>
<td>YTD Actual $'000</td>
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<td>YTD Actual $'000</td>
<td>Var ($)</td>
<td>Var(%)</td>
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</tr>
<tr>
<td>Operating Revenue</td>
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</tr>
<tr>
<td>3 Interest</td>
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<tr>
<td>4 Other operating revenues</td>
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<tr>
<td>5 Grants &amp; contributions - Operating</td>
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<td>7 Borrowing costs</td>
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<tr>
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<td>11 Net Loss from disposal of assets</td>
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<td>3,402</td>
<td>889</td>
<td>33</td>
<td>215</td>
<td>210</td>
<td>25,549</td>
<td>25,015</td>
<td>(534)</td>
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<td>YTD Actual (000's)</td>
<td>Variance (000's)</td>
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<td></td>
</tr>
<tr>
<td>General Rates</td>
<td>104,082</td>
<td>104,082</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>Domestic Waste</td>
<td>18,282</td>
<td>18,282</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Stormwater</td>
<td>1,890</td>
<td>1,890</td>
<td>0</td>
<td></td>
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</tr>
<tr>
<td>Levies</td>
<td>2,316</td>
<td>2,316</td>
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<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Total Rates</strong></td>
<td><strong>126,570</strong></td>
<td><strong>126,570</strong></td>
<td><strong>0</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Debtors Report as at 31 May, 2016

### Outstanding Rates

<table>
<thead>
<tr>
<th>Debt Recovery Action</th>
<th>No. of Properties</th>
<th>$ Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Action</td>
<td>394</td>
<td>$1,642,737.00</td>
</tr>
<tr>
<td>Formal Arrangements</td>
<td>182</td>
<td>$230,606.06</td>
</tr>
<tr>
<td>Deferral against estate</td>
<td>57</td>
<td>$669,662.98</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>633</strong></td>
<td><strong>2,543,006</strong></td>
</tr>
</tbody>
</table>

### Aged Debtors Report

<table>
<thead>
<tr>
<th>Period</th>
<th>Apr-16</th>
<th>May-16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Current</td>
<td>1,246,298</td>
<td>1,150,158</td>
</tr>
<tr>
<td>30 Days</td>
<td>228,339</td>
<td>155,939</td>
</tr>
<tr>
<td>60 Days</td>
<td>100,133</td>
<td>121,767</td>
</tr>
<tr>
<td>90 Days</td>
<td>771,617</td>
<td>748,966</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,346,387</strong></td>
<td><strong>2,176,830</strong></td>
</tr>
</tbody>
</table>

### Breakdown of Material Debtors greater than $100,000

<table>
<thead>
<tr>
<th>Debtor</th>
<th>Business Unit</th>
<th>Total $</th>
<th>Current $</th>
<th>30 Days $</th>
<th>60 Days $</th>
<th>90 Days $</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP Australia Pty Ltd</td>
<td>Infrastructure Planning</td>
<td>376,992</td>
<td>376,992</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Division of Local Government</td>
<td>Finance</td>
<td>178,009</td>
<td>178,009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LMCC</td>
<td>Waste Management</td>
<td>298,451</td>
<td>298,451</td>
<td></td>
<td></td>
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<tr>
<td>RTC Civil</td>
<td>Waste Management</td>
<td>105,833</td>
<td>245</td>
<td>1,209</td>
<td>104,379</td>
<td>208,403</td>
</tr>
<tr>
<td>Statewide Property Mutual</td>
<td>Insurance</td>
<td>208,403</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volvo Commercial Vehicles</td>
<td>Fleet Management</td>
<td>220,000</td>
<td>220,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Commentary on Material Debtors greater than 90 days

**BP Australia Pty Ltd**
Legal action is currently underway with BP regarding a segment of Council’s pipework being broken. This is an ongoing issue and the cost represents the pumping out of localised flooding and repair of pipework during negotiations. It is expected that this money will be recouped from BP.

**Statewide Property Mutual**
The debt is related to a number of property damage claims made with Council's insurer from damage received during the April 2015 storm. Although the claims are currently outstanding Council is expecting reimbursement.
<table>
<thead>
<tr>
<th>Works Program</th>
<th>YTD Revised Budget $,000</th>
<th>YTD Actual Result $,000</th>
<th>Variance to YTD budget (%)</th>
<th>% of Budget spent YTD</th>
<th>% Spend Required YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Represented by</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32,761 Asset Renewal</td>
<td>30,031</td>
<td>23,995</td>
<td>25%</td>
<td>73%</td>
<td>82%</td>
</tr>
<tr>
<td>35,053 New Assets</td>
<td>31,330</td>
<td>21,433</td>
<td>46%</td>
<td>61%</td>
<td>87%</td>
</tr>
<tr>
<td>6,708 Special Rate Variation Projects</td>
<td>5,732</td>
<td>4,301</td>
<td>33%</td>
<td>64%</td>
<td>83%</td>
</tr>
<tr>
<td><strong>74,522 Total Works Program</strong></td>
<td><strong>67,093</strong></td>
<td><strong>49,729</strong></td>
<td><strong>35%</strong></td>
<td><strong>67%</strong></td>
<td><strong>85%</strong></td>
</tr>
<tr>
<td>Asset Renewal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14,032 Building and Structures</td>
<td>12,863</td>
<td>9,322</td>
<td>38%</td>
<td>66%</td>
<td>85%</td>
</tr>
<tr>
<td>9,359 City Roads</td>
<td>8,579</td>
<td>8,354</td>
<td>3%</td>
<td>89%</td>
<td>79%</td>
</tr>
<tr>
<td>9,370 Environment</td>
<td>8,589</td>
<td>6,319</td>
<td>36%</td>
<td>67%</td>
<td>82%</td>
</tr>
<tr>
<td><strong>32,761 Total Asset Renewal</strong></td>
<td><strong>30,031</strong></td>
<td><strong>23,995</strong></td>
<td><strong>25%</strong></td>
<td><strong>73%</strong></td>
<td><strong>82%</strong></td>
</tr>
<tr>
<td>New Assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15,407 Built Infrastructure</td>
<td>13,212</td>
<td>8,779</td>
<td>50%</td>
<td>57%</td>
<td>87%</td>
</tr>
<tr>
<td>9,155 Fleet Replacement</td>
<td>8,501</td>
<td>5,977</td>
<td>42%</td>
<td>65%</td>
<td>89%</td>
</tr>
<tr>
<td>5,726 IT</td>
<td>5,249</td>
<td>4,117</td>
<td>27%</td>
<td>72%</td>
<td>84%</td>
</tr>
<tr>
<td>2,840 Waste</td>
<td>2,603</td>
<td>1,290</td>
<td>102%</td>
<td>45%</td>
<td>87%</td>
</tr>
<tr>
<td>359 Governance</td>
<td>329</td>
<td>57</td>
<td>477%</td>
<td>16%</td>
<td>90%</td>
</tr>
<tr>
<td>652 Strategic</td>
<td>598</td>
<td>439</td>
<td>36%</td>
<td>67%</td>
<td>83%</td>
</tr>
<tr>
<td>914 Minor Capital</td>
<td>838</td>
<td>774</td>
<td>8%</td>
<td>85%</td>
<td>87%</td>
</tr>
<tr>
<td><strong>35,053 Total New Assets</strong></td>
<td><strong>31,330</strong></td>
<td><strong>21,433</strong></td>
<td><strong>46%</strong></td>
<td><strong>61%</strong></td>
<td><strong>87%</strong></td>
</tr>
<tr>
<td>2012 SRV - Priority Projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>862 Hunter St Revitalisation</td>
<td>585</td>
<td>416</td>
<td>41%</td>
<td>48%</td>
<td>87%</td>
</tr>
<tr>
<td>4,281 Coastal Revitalisation</td>
<td>3,924</td>
<td>2,835</td>
<td>38%</td>
<td>66%</td>
<td>81%</td>
</tr>
<tr>
<td>1,159 Cycleways</td>
<td>851</td>
<td>816</td>
<td>4%</td>
<td>70%</td>
<td>87%</td>
</tr>
<tr>
<td>406 Blackbutt</td>
<td>372</td>
<td>234</td>
<td>59%</td>
<td>58%</td>
<td>87%</td>
</tr>
<tr>
<td><strong>6,708 Total 2012 SRV - Priority Projects</strong></td>
<td><strong>5,732</strong></td>
<td><strong>4,301</strong></td>
<td><strong>33%</strong></td>
<td><strong>64%</strong></td>
<td><strong>83%</strong></td>
</tr>
</tbody>
</table>

Note: The Budget above is inclusive of operational and capital works
Note: % Spend required is based upon the spread of costs over the past 5 years
<table>
<thead>
<tr>
<th>Date</th>
<th>Contract Name</th>
<th>Original Contract Sum</th>
<th>Variations to date (previous to this)</th>
<th>Proposed Variation</th>
<th>Variation Funding Source</th>
<th>Revised Contract Amount</th>
<th>Reason for Variation</th>
<th>Impact of not Approving</th>
</tr>
</thead>
<tbody>
<tr>
<td>22/07/2015</td>
<td>Bathers Way - Dixon Park to Bar Beach Stage 2 - Construction</td>
<td>$1,578,154.00</td>
<td>$134,240.05</td>
<td>$5,480.20</td>
<td>Within Project Funds</td>
<td>$1,717,874.25</td>
<td>Coreten panels all required to be lazer cut - lower panels were not shown on</td>
<td>Assent Planning Team advised that these were to be included in the works to ensure overall design variations were included in the works to increase the value of the project within the scope. This is proposed to provide a high value to the community of the overall project works.</td>
</tr>
<tr>
<td>22/07/2015</td>
<td>Bathers Way - Dixon Park to Bar Beach Stage 2 - Construction</td>
<td>$1,578,154.00</td>
<td>$139,720.25</td>
<td>$5,146.49</td>
<td>Within Project Funds</td>
<td>$1,723,020.74</td>
<td>Shadecloth to be double width to ensure longevity &amp; limit sand onto public</td>
<td>Sand may ‘wear’ out the shadecloth &amp; require replacement &amp; ongoing maintenance of public promenade</td>
</tr>
<tr>
<td>24/07/2015</td>
<td>Bathers Way - Dixon Park to Bar Beach Stage 2 - Construction</td>
<td>$1,578,154.00</td>
<td>$144,866.44</td>
<td>$9,417.87</td>
<td>Within Project Funds</td>
<td>$1,732,438.31</td>
<td>Shade Shelters - changes to roof lining &amp; external sheeting</td>
<td>Client requested change to external roof sheeting to match Nobbys Beach shelters</td>
</tr>
<tr>
<td>24/07/2015</td>
<td>Bathers Way - Dixon Park to Bar Beach Stage 2 - Construction</td>
<td>$1,578,154.00</td>
<td>$154,284.31</td>
<td>$8,809.66</td>
<td>Within Project Funds</td>
<td>$1,744,247.97</td>
<td>1. Pre-cast pit lid to ‘discovered pit’ during excavation works 2. Posi-track hire for Bushland Services to undertake mulching on ‘cliff area’ 3. Additional works were required to be undertaken to ensure long term integrity of the edge beams</td>
<td>Due to site conditions and geotechnical issues additional works were required to be undertaken to ensure long term integrity of the edge beams</td>
</tr>
<tr>
<td>31/07/2015</td>
<td>Bathers Way - Dixon Park to Bar Beach Stage 2 - Construction</td>
<td>$1,578,154.00</td>
<td>$163,093.70</td>
<td>$1,920.94</td>
<td>Within Project Funds</td>
<td>$1,744,168.91</td>
<td>1. Prolongation Claim - 3 week delay due to Beach Stair 1, 2, edge beam 2 and shade structure decision delays following storm event in April and change of materials. The contractor (Michilis) submitted a prolongation claim - the claim involves circumstances beyond the contractors control 2. Relocation &amp; extension of Staircase 2, due to April storm rock shelf was exposed which provided better access to beach &amp; stairs were relocated southwards &amp; further eastwards - longer onto this rockshelf 3. Addition of beach shower &amp; concrete beams to slab to improve amenity to the facility 4. Countersinking of eyelets for shadecloth fixing &amp; removal of catseyes in Kilgour Ave which were beyond the extent of works of the project</td>
<td>1. The claim for three weeks is supported with the attached document 2. Due to April storm the designed access was unsuitable due to storm damage on dune, to ensure that the new works were suitable for the existing location conditions 3. Additional beach shower to beach access to provide for improved amenity for the community. 4. Shadecloth to finish flush with slabs to limit sand blown onto pathway to reduce ongoing maintenance of the site and provide for improved amenity for the community and the removal of cat eyes in Kilgour Ave due to the change in the road alignment which were outside the extent of works.</td>
</tr>
<tr>
<td>17/08/2015</td>
<td>Bathers Way - Dixon Park to Bar Beach Stage 2 - Construction</td>
<td>$1,578,154.00</td>
<td>$163,093.97</td>
<td>$84,457.73</td>
<td>Within Project Funds</td>
<td>$1,825,705.70</td>
<td>1. Provide 3 No. concrete stairs at base of staircase on rock shelf to ensure longevity to stairs 2. Provide skate deterrents to works to be the same for all Bathers Way 3. Additional timber staircase posts due to ‘found’ stormwater pipe during excavation works - latent condition</td>
<td>1. The longevity of the new staircase is likely to be compromised and not provide a lasting solution 2. Ensure that the overall Bathers Way uses the same product that provides for protection to the finished asset 3. Latent condition has had an negative impact on the structure design of the staircase</td>
</tr>
<tr>
<td>18/09/2015</td>
<td>Bathers Way - Dixon Park to Bar Beach Stage 2 - Construction</td>
<td>$1,578,154.00</td>
<td>$247,551.70</td>
<td>$11,345.56</td>
<td>Within Project Funds</td>
<td>$1,837,051.26</td>
<td>Incomplete elements from Stage 1 Dixon Park to Bar Beach - skate deterrents &amp; pre-cast signage pavers</td>
<td>Stage 1 works will continue to suffer damage from skateboards &amp; the precast signage paver will not be finalised - there are 2 no sawcut areas for these to be installed that will reduce the impact of the finished asset</td>
</tr>
<tr>
<td>14/10/2015</td>
<td>Bathers Way - Dixon Park to Bar Beach Stage 2 - Construction</td>
<td>$1,578,154.00</td>
<td>$258,897.26</td>
<td>$25,057.26</td>
<td>Within Project Funds</td>
<td>$1,862,108.52</td>
<td>1. Provide 3 No. concrete stairs at base of staircase on rock shelf to ensure longevity to stairs 2. Provide skate deterrents to works to be the same for all Bathers Way 3. Additional timber staircase posts due to ‘found’ stormwater pipe during excavation works - latent condition</td>
<td>1. The longevity of the new staircase is likely to be compromised and not provide a lasting solution 2. Ensure that the overall Bathers Way uses the same product that provides for protection to the finished asset 3. Latent condition has had an negative impact on the structure design of the staircase</td>
</tr>
<tr>
<td>5/11/2015</td>
<td>Bathers Way - Dixon Park to Bar Beach Stage 2 - Construction</td>
<td>$1,578,154.00</td>
<td>$283,954.52</td>
<td>$544.93</td>
<td>Within Project Funds</td>
<td>$1,861,563.59</td>
<td>Deduction of 19 No. anti-skate deterrents installed</td>
<td>Deduction in quantity of anti-skate deterrents</td>
</tr>
</tbody>
</table>

Listing of project variations for contracts over $100,000 for the period ending 31 May, 2016
<table>
<thead>
<tr>
<th>Date</th>
<th>Contract Name</th>
<th>Original Contract Sum</th>
<th>Variations to date (previous to this)</th>
<th>Proposed Variation</th>
<th>Variation Funding Source</th>
<th>Revised Contract Amount</th>
<th>Reason for Variation</th>
<th>Impact of not Approving</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/08/2015</td>
<td>BATHERS WAY - NOBBYS - ZAARA ST - STRUCTURAL DESIGN &amp; DOCUMENTATION</td>
<td>$ 39,284.00</td>
<td>$ 73,825.00</td>
<td>$ 10,770.00</td>
<td>Within Project Funds</td>
<td>$ 123,879.00</td>
<td>The initial proposal from Northrop (refer to line item No. 5) allowed for design and documentation of &quot;cliff stabilisation&quot;, meaning the removal of the existing exotic vegetation and replacement with select species, combined with soft engineering works during the establishment period. The cliff stabilisation element was not accepted at the time of the proposal, as it was believed internal resources could deliver this element. Unforeseen circumstances prevented internal resources delivering the element. Subsequently, Northrop were requested to provide this element and did so. However, at that time, approval for the variation was not obtained by the Project Manager. This variation covers the cliff stabilisation element.</td>
<td>The works have been completed. Approval was not obtained prior to the works being completed due to an oversight by the Project Manager.</td>
</tr>
<tr>
<td>22/02/2016</td>
<td>Newcastle Museum Erecting Shop Roof Rectification Works</td>
<td>$ 855,917.82</td>
<td>-</td>
<td>$ 107,935.82</td>
<td>Additional Project Funds</td>
<td>$ 963,853.64</td>
<td>Specialised restoration of the bell systems, PC SUM allowance of $140,000 incl. GST in Contract. Variation is for the cost of the work over and above the PC SUM allowance.</td>
<td>Clock and bell systems would not be complete.</td>
</tr>
<tr>
<td>23/02/2016</td>
<td>Newcastle Museum Erecting Shop Roof Rectification Works</td>
<td>$ 5,321,654.00</td>
<td>$ 431,807.22</td>
<td>$ 88,074.34</td>
<td>Within Project Funds</td>
<td>$ 4,041,536.56</td>
<td>The tender drawings indicated only the 'likely' extent of stone replacement for the façade after a visual inspection of the clock tower from a crane over one day in 2010. It was always known and reported that the full extent of the façade restoration would not be confirmed until the work was commenced with proper access from a scaffold. Sufficient contingency allowance was included within the project budget to address this. This variation is for the additional stone replacements that were required as reviewed and agreed by the Project Manager and the Heritage consultants.</td>
<td>Façade conservation work would be incomplete.</td>
</tr>
<tr>
<td>12/11/2015</td>
<td>City Hall Clocktower Conservation</td>
<td>$ 3,521,654.00</td>
<td>$ 519,881.56</td>
<td>$ 34,989.00</td>
<td>Within Project Funds</td>
<td>$ 4,076,524.56</td>
<td>The variation is for the work required to repair the timber roof structure of the clock tower. The original tender drawings did not indicate the full scope of work required to the roof structure as access was not possible within the roof space. The condition of the structure was therefore not known at the time of tender. The work required included new holding down bolts, brackets and plywood lining under the new copper roof cladding. Sufficient project funding exists to accommodate this work by way of a contingency allowance. The variation has been reviewed in detail and it is recommended that it be approved.</td>
<td>Façade conservation work would be incomplete.</td>
</tr>
<tr>
<td>19/10/2015</td>
<td>City Hall Clocktower Conservation</td>
<td>$ 3,521,654.00</td>
<td>$ 554,870.56</td>
<td>$ 21,860.00</td>
<td>Within Project Funds</td>
<td>$ 4,098,384.56</td>
<td>The work required is the structural repairs required to the clock tower concrete elements, primarily within the bell chamber level concrete columns, beams and slabs. The work is carried out in accordance with the recommendations of the structural engineer by a specialist concrete repair subcontractor. The work is additional to the original scope of work which did not allow sufficient quantity for the required repairs.</td>
<td>Façade conservation work would be incomplete.</td>
</tr>
<tr>
<td>26/08/2015</td>
<td>City Hall Clocktower Conservation</td>
<td>$ 3,521,654.00</td>
<td>$ 431,807.22</td>
<td>$ 88,074.34</td>
<td>Within Project Funds</td>
<td>$ 4,041,536.56</td>
<td>The tender drawings indicated only the 'likely' extent of stone replacement for the façade after a visual inspection of the clock tower from a crane over one day in 2010. It was always known and reported that the full extent of the façade restoration would not be confirmed until the work was commenced with proper access from a scaffold. Sufficient contingency allowance was included within the project budget to address this. This variation is for the additional stone replacements that were required as reviewed and agreed by the Project Manager and the Heritage consultants.</td>
<td>Façade conservation work would be incomplete.</td>
</tr>
<tr>
<td>19/10/2015</td>
<td>City Hall Clocktower Conservation</td>
<td>$ 3,521,654.00</td>
<td>$ 519,881.56</td>
<td>$ 34,989.00</td>
<td>Within Project Funds</td>
<td>$ 4,076,524.56</td>
<td>The variation is for the work required to repair the timber roof structure of the clock tower. The original tender drawings did not indicate the full scope of work required to the roof structure as access was not possible within the roof space. The condition of the structure was therefore not known at the time of tender. The work required included new holding down bolts, brackets and plywood lining under the new copper roof cladding. Sufficient project funding exists to accommodate this work by way of a contingency allowance. The variation has been reviewed in detail and it is recommended that it be approved.</td>
<td>Façade conservation work would be incomplete.</td>
</tr>
<tr>
<td>22/02/2016</td>
<td>City Hall Clocktower Conservation</td>
<td>$ 3,521,654.00</td>
<td>$ 681,962.98</td>
<td>$ 16,878.52</td>
<td>Within Project Funds</td>
<td>$ 4,220,304.50</td>
<td>Repair of the existing stonework by synthetic stone patching as required to the sandstone that was retained on the façades of the tower. Whilst some synthetic stone repair was included in the Contract, as per the tender drawings, the Contract included a priced schedule of rates for any additional synthetic stone repairs that were required.</td>
<td>Façade conservation work would be incomplete.</td>
</tr>
<tr>
<td>12/11/2015</td>
<td>City Hall Clocktower Conservation</td>
<td>$ 3,521,654.00</td>
<td>$ 576,730.56</td>
<td>$ 105,232.42</td>
<td>Within Project Funds</td>
<td>$ 4,203,616.98</td>
<td>The work required is the structural repairs required to the clock tower concrete elements, primarily within the bell chamber level concrete columns, beams and slabs. The work is carried out in accordance with the recommendations of the structural engineer by a specialist concrete repair subcontractor. The work is additional to the original scope of work which did not allow sufficient quantity for the required repairs.</td>
<td>Façade conservation work would be incomplete.</td>
</tr>
<tr>
<td>Date</td>
<td>Contract Name</td>
<td>Original Contract Sum</td>
<td>Variations to date (previous to this)</td>
<td>Proposed Variation</td>
<td>Revised Contract Amount</td>
<td>Reason for Variation</td>
<td>Impact of not Approving</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------</td>
<td>-----------------------</td>
<td>--------------------------------------</td>
<td>--------------------</td>
<td>-------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>5/11/2015</td>
<td>Newcastle Museum Erecting Shop Roof Rectification Works</td>
<td>$855,917.82</td>
<td>$107,935.82</td>
<td>$72,056.25</td>
<td>$1,035,909.89</td>
<td>Variation to include: 1. Supply and installation of Lightning Protection System to all 3 Museum buildings (Project 100076); 2. Additional preparation and painting required to existing museum building fascias and gutters (Project 100082); 3. Relocation of existing downpipe spreaders to enable installation of roof access system and installation of metal channel on existing louvre hoods for safety of personnel while on roof.</td>
<td>Installation of the Lightning Protection System is an approved project (100076). Additional painting works to new gutters required to match existing building colours advised by OEH-Heritage Council NSW. Existing downpipe spreaders required to be relocated to enable installation of the roof access system. The existing louvre hoods have unfinished, sharp edges that present a hazard to personnel on the roof. The costs to install/undertake all above works after incumbent Contractor leaves the site would be significantly higher and would impact on the Museum's exhibition program.</td>
<td></td>
</tr>
<tr>
<td>19/01/2016</td>
<td>Newcastle Museum Erecting Shop Roof Rectification Works</td>
<td>$855,917.82</td>
<td>$179,992.07</td>
<td>$32,922.78</td>
<td>$1,068,832.67</td>
<td>Variation includes 1. Modifications to roof access door required due to location of structural steelwork; 2. Error in calculation of total of approved Variation 2; 3. Installation of new light fittings (supplied separately) to underside of existing roof structure; 4. Installation of new C-purlin to each bullnose roof as required by NCC's structural engineer; 5. Painting to existing barge and eaves of museum buildings to match new works.</td>
<td>1. Roof access door will not be operable without modification; 2. Council will not comply with its obligation for payment; 3. Light fittings are failing and will require replacement in short - medium term; 4. Additional structural support is required to the bullnoses as indentified by NCC's structural engineer; 5. Existing barges and eaves will require painting in the short - medium term.</td>
<td></td>
</tr>
<tr>
<td>Business Unit</td>
<td>Approved by</td>
<td>Organisation</td>
<td>Reduction Value</td>
<td>Reduction Reason</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------</td>
<td>----------------------------</td>
<td>-----------------</td>
<td>------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilities &amp; Recreation</td>
<td>Phil Moore</td>
<td>CatholicCare Night Food Van</td>
<td>$1,672</td>
<td>Charity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Unit</td>
<td>Approved by</td>
<td>Organisation</td>
<td>Reduction Value</td>
<td>Reduction Reason</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
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<td>-----------------------------</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilities &amp; Recreation</td>
<td>Phil Moore</td>
<td>CatholicCare Night Food Van</td>
<td>$1,672</td>
<td>Charity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
REPORTING PERIOD:
1 May 2016 to 31 May 2016

EXECUTIVE SUMMARY

1 Council’s temporary surplus funds are invested consistent with Council’s Investment Policy and The Local Government Act and Regulations. Demonstrated compliance is disclosed later within this report.

2 Council’s overall investment portfolio holdings are $305,629,476, comprising $297,107,217 Hold to Maturity, and $8,522,259 At Call. The At Call balance was elevated at month end due to a new investment commitment due for settlement in early June 2016. Further disclosure on investment portfolio composition and details of investment placements for the reporting period are disclosed later in this report.

3 Council achieved a Net Return on the investment portfolio for the 12 months to 31 May 2016 of 3.41%, against the benchmark of 2.25% (90d Bloomberg AusBond Bank Bill Index. Formerly the 90day UBS Australian Bank Bill Index).

Council’s Investment Policy mandates a KPI Active Return (Net Return less benchmark) of 0.50%. The Active Return for the 12 months to May 2016 was 1.16%.

4 Council’s 2015/16 cumulative year to date return from investments amounts to $8,839,669. The budget to actual interest report as at 31 May 2016 is submitted to Council at the conclusion of this report.

5 In accordance with Council’s resolution of 30 May 1995, the schedules of investments from the two previous meetings of Council are provided in detail at the conclusion of this report.

KEY ISSUES

6 As outlined above in Section 1, Council’s temporary surplus funds have been invested in a manner consistent with both legislative requirements and Council’s Investment Policy. Accordingly, application of the investment function has remained consistent with requirements outlined within Part E of the Policy Environmentally and Socially Responsible Investments (SRI).

7 All returns on investments are included in Council’s Annual Operational Plan and Delivery Program and Budget. Any amendment to budgeted interest income is effected through the Quarterly Review process.

8 The adopted budget for 2015/16 investment income was estimated based on an average interest rate of 3.20%. This rate of return was derived on a conservative basis utilising forecast market interest rates and forecast product margins, whilst also ensuring a compliant and well diversified portfolio is maintained throughout the forecast period. The budgeted interest rate is then applied to conservatively forecast investment portfolio holdings for the period.
A revised 2015/16 investment income budget was adopted by Council at the September 2015 quarterly review. Factors influencing the revision were:

- Increased cash holdings resultant from non-delivery of budgeted capital works in 2014/15 in addition to Council’s successful special rate variation application; and
- Updated interest rate forecasts better reflecting current pricing expectations for the forecast period.

Further budget revisions were adopted at both the December 2015 and March 2016 quarterly reviews. These revisions were both a result of the capital works program continuing to remain significantly under budget for an extended period.

Interest rate quotations for new funds and rollover funds during the reporting period have varied between 2.78% and 7.00% dependent on institution, investment product, date of purchase, credit rating and term to maturity. These factors are taken into consideration to ensure cash flow requirements of Council are met and compliance with asset and risk diversification principles of Council’s policy and strategies are also met.

**FORECAST INTEREST RATES**

Council’s temporary surplus funds are invested on varying terms to match the cash flow requirements of Council’s annual budget and longer term commitments. Council’s new and rolled investments are subject to current and future economic financial market prices. The below graphs display the average of interest rate forecasts sourced from the 4 major Australian Banks as at 31 May 2016.

Floating rate investments entered into by Council are generally priced on the 90 Bank Bill Swap Rate (BBSW), plus a margin (margin not reflected in graph).
The 3yr swap rate is representative of the fixed interest rate Council can obtain on a 3yr fixed investment, plus a margin (margin not reflected in graph).
The breakdown of Council's Investments are as follows:

<table>
<thead>
<tr>
<th>Investment Principal</th>
<th>Mar-16</th>
<th>Apr-16</th>
<th>May-16</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hold to Maturity Investments</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term Deposit - Fixed Rate</td>
<td>113,278,847</td>
<td>104,278,847</td>
<td>110,778,847</td>
</tr>
<tr>
<td>Term Deposit - Floating Rate</td>
<td>32,500,000</td>
<td>32,500,000</td>
<td>32,500,000</td>
</tr>
<tr>
<td>Floating Rate Note</td>
<td>127,881,139</td>
<td>132,879,442</td>
<td>135,386,164</td>
</tr>
<tr>
<td>Fixed Rate Bond</td>
<td>18,469,587</td>
<td>18,469,587</td>
<td>18,442,206</td>
</tr>
<tr>
<td></td>
<td><strong>292,129,573</strong></td>
<td><strong>288,127,875</strong></td>
<td><strong>297,107,217</strong></td>
</tr>
<tr>
<td><strong>At Call Investments</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheque Account</td>
<td>4,231,599</td>
<td>4,586,040</td>
<td>8,522,259</td>
</tr>
<tr>
<td>Online Account</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td><strong>4,231,599</strong></td>
<td><strong>4,586,040</strong></td>
<td><strong>8,522,259</strong></td>
</tr>
<tr>
<td><strong>Total Portfolio Holdings</strong></td>
<td><strong>296,361,172</strong></td>
<td><strong>292,713,915</strong></td>
<td><strong>305,629,476</strong></td>
</tr>
</tbody>
</table>

Commentary:
The At Call balance was elevated as at 31 May 2016. A new investment for $2,500,000 was entered into on 31 May 2016 however the settlement of this investment was not due until 7 June 2016. Therefore, additional cash was retained At Call as at 31 May to provide coverage for this commitment.

Key Performance Indicator Compliance
As at 31 May 2016

Investment Policy requirement:

The Key Performance Indicator (KPI) for income on investments is benchmarked at 0.50% above the 1 year return on the 90 day Bloomberg AusBond Bank Bill Index (formerly UBS Australian Bank Bill Index).

Commentary:

Portfolio 12 Month Rolling Return is gradually trending lower. The overall downward trend is attributable to a number of combining factors:

1. Ongoing maturity of Long Term Fixed Rate investments;
2. Margins obtainable on new investments having tightened in comparison to maturing investments; and
3. General flattening trend of the Yield Curve

The Portfolio 12 Month Rolling Return is forecast to continue the gradual downward trend due to the continuing prevalence of the above three factors.

The Active Return continues to be well in excess of the current KPI set at 0.50%. Current market conditions continue to support the maintenance of the KPI at its current level and Council's ability to exceed this target without taking undue risk.
Investment Policy requirement:

New investments are to be placed in accordance with the following credit risk limits at the time of entering into the transaction:

<table>
<thead>
<tr>
<th>Institution Credit Rating (Standard &amp; Poors)</th>
<th>% limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>100%</td>
</tr>
<tr>
<td>AAA+ to AAA-</td>
<td>100%</td>
</tr>
<tr>
<td>AA+ to AA-</td>
<td>80%</td>
</tr>
<tr>
<td>A+ to A-</td>
<td>50%</td>
</tr>
<tr>
<td>BBB+ to BBB</td>
<td>40%</td>
</tr>
<tr>
<td>Non Rated Category</td>
<td>10%</td>
</tr>
</tbody>
</table>

Credit Risk exposure

<table>
<thead>
<tr>
<th>Institution Credit Rating (S&amp;P)</th>
<th>Mar-16</th>
<th>Apr-16</th>
<th>May-16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td><strong>Government</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>AAA+ to AAA-</strong></td>
<td>163,497,141 55%</td>
<td>159,852,171 55%</td>
<td>165,261,070 54%</td>
</tr>
<tr>
<td><strong>AA+ to AA-</strong></td>
<td>71,049,120 24%</td>
<td>74,048,052 25%</td>
<td>75,554,857 25%</td>
</tr>
<tr>
<td><strong>A+ to A-</strong></td>
<td>61,814,911 21%</td>
<td>58,813,692 20%</td>
<td>64,813,549 21%</td>
</tr>
<tr>
<td><strong>BBB+ to BBB</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Non Rated</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Portfolio Holdings</strong></td>
<td>296,361,172</td>
<td>292,713,915</td>
<td>305,629,476</td>
</tr>
</tbody>
</table>

Commentary:

Where the credit rating of an institution and investment held with that institution diverge exposure is reported on a conservative basis with the lower of the two ratings applied.

Council retains a conservative position in relation to credit risk exposure. Investments remain weighted to higher rated institutions whilst those investments held with lower rated institutions are weighted toward shorter term to maturities.
Credit Risk Compliance (cont.)
As at 31 May 2016

Investment Policy requirement:

Exposure to individual ADIs, Commonwealth, State of the Commonwealth or Territory or Commonwealth Council the following credit framework limits apply:

<table>
<thead>
<tr>
<th>Institution Credit Rating (Standard &amp; Poors)</th>
<th>% limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>100%</td>
</tr>
<tr>
<td>AAA+ to AAA-</td>
<td>30%</td>
</tr>
<tr>
<td>AA+ to AA-</td>
<td>30%</td>
</tr>
<tr>
<td>A+ to A-</td>
<td>15%</td>
</tr>
<tr>
<td>BBB+ to BBB</td>
<td>10%</td>
</tr>
<tr>
<td>Non Rated Category</td>
<td>5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Institution</th>
<th>Institution abbreviation</th>
<th>Long Term Credit Rating (S&amp;P)</th>
<th>Mar-16</th>
<th>Apr-16</th>
<th>May-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANZ</td>
<td>ANZ</td>
<td>A-</td>
<td>22,963,369</td>
<td>25,964,004</td>
<td>23,963,782</td>
</tr>
<tr>
<td>Commonwealth Bank of Australia</td>
<td>CBA</td>
<td>AA-</td>
<td>43,895,890</td>
<td>43,250,285</td>
<td>44,688,113</td>
</tr>
<tr>
<td>National Australia Bank Limited</td>
<td>NAB</td>
<td>AA</td>
<td>56,278,618</td>
<td>50,278,618</td>
<td>59,278,618</td>
</tr>
<tr>
<td>Westpac Banking Corporation</td>
<td>WBC</td>
<td>AA-</td>
<td>40,359,264</td>
<td>40,359,264</td>
<td>37,330,558</td>
</tr>
<tr>
<td>AMP Bank Limited</td>
<td>AMP</td>
<td>A+</td>
<td>3,500,000</td>
<td>3,500,000</td>
<td>6,509,780</td>
</tr>
<tr>
<td>Rabobank</td>
<td>RABO</td>
<td>A+</td>
<td>4,002,632</td>
<td>4,002,632</td>
<td>4,002,406</td>
</tr>
<tr>
<td>Suncorp Metway Limited</td>
<td>SUN</td>
<td>A+</td>
<td>19,014,162</td>
<td>19,013,094</td>
<td>19,013,094</td>
</tr>
<tr>
<td>Credit Suisse AG</td>
<td>CS</td>
<td>A</td>
<td>3,000,000</td>
<td>3,000,000</td>
<td>3,000,000</td>
</tr>
<tr>
<td>Macquarie Bank</td>
<td>MQG</td>
<td>A</td>
<td>7,500,000</td>
<td>7,500,000</td>
<td>7,500,000</td>
</tr>
<tr>
<td>Bendigo Bank</td>
<td>BEN</td>
<td>A-</td>
<td>14,029,121</td>
<td>14,029,121</td>
<td>14,026,557</td>
</tr>
<tr>
<td>Bank of Queensland</td>
<td>BOQ</td>
<td>A-</td>
<td>16,003,205</td>
<td>19,003,205</td>
<td>17,503,020</td>
</tr>
<tr>
<td>ING Bank (Australia) Ltd</td>
<td>ING</td>
<td>A-</td>
<td>4,000,000</td>
<td>4,000,000</td>
<td>4,000,000</td>
</tr>
<tr>
<td>Beyond Bank</td>
<td>BEY</td>
<td>BBB+</td>
<td>6,000,000</td>
<td>6,000,000</td>
<td>12,000,000</td>
</tr>
<tr>
<td>Credit Union Australia</td>
<td>CUA</td>
<td>BBB+</td>
<td>4,502,982</td>
<td>4,502,982</td>
<td>4,502,982</td>
</tr>
<tr>
<td>Greater Building Society Limited</td>
<td>GBS</td>
<td>BBB+</td>
<td>13,300,000</td>
<td>13,300,000</td>
<td>13,300,000</td>
</tr>
<tr>
<td>Heritage Bank Limited</td>
<td>HBS</td>
<td>BBB+</td>
<td>5,000,000</td>
<td>5,000,000</td>
<td>5,000,000</td>
</tr>
<tr>
<td>Members Equity Bank</td>
<td>ME</td>
<td>BBB+</td>
<td>13,511,169</td>
<td>10,509,951</td>
<td>10,509,951</td>
</tr>
<tr>
<td>Newcastle Permanent Building Society</td>
<td>NPBS</td>
<td>BBB+</td>
<td>19,500,760</td>
<td>19,500,760</td>
<td>19,500,616</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Institution</th>
<th>Institution abbreviation</th>
<th>Long Term Credit Rating (S&amp;P)</th>
<th>Mar-16</th>
<th>Apr-16</th>
<th>May-16</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grand Total</strong></td>
<td></td>
<td></td>
<td>296,361,172</td>
<td>292,713,915</td>
<td>305,629,476</td>
</tr>
</tbody>
</table>

Commentary:
Where the credit rating of an institution and investment diverge exposure is reported on a conservative basis with the lower of the two ratings applied.
Investment Policy requirement:

The investment portfolio is to be managed within the following maturity constraints in order to manage Maturity Risk and limit Liquidity Risk, whilst also allowing for diversification of the portfolio:

<table>
<thead>
<tr>
<th>Term to Maturity</th>
<th>Minimum %</th>
<th>Maximum %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 Year</td>
<td>30%</td>
<td>100%</td>
</tr>
<tr>
<td>&gt; 1 Year &lt; 3 Years</td>
<td></td>
<td>60%</td>
</tr>
<tr>
<td>&gt; 3 Years &lt; 5 Years</td>
<td></td>
<td>40%</td>
</tr>
<tr>
<td>&gt; 5 Years</td>
<td></td>
<td>10%</td>
</tr>
</tbody>
</table>

Commentary:

The total funds invested have declined throughout the reported period. Total dollar value exposure to longer term investments have been maintained, taking advantage of a recent widening of longer term investment margins.
Commentary:
A revised budget was adopted at the September 2015 quarterly review (Revised Budget 1). Factors influencing the revision were:

1. Increased cash holdings resulting from non delivery of budgeted capital works in 2014/15 in addition to Councils successful special rate variation application; and

2. Updated interest rate forecasts better reflecting current pricing expectations for the forecast period.

A further budget revision was adopted at December 2015 and increased again at the March 2016 quarterly review (Revised Budget 2). This is a result of the capital works program continuing to remain significantly under budget.
## Schedule of Investment movements
1 April 2016 to 30 April 2016

<table>
<thead>
<tr>
<th>Date</th>
<th>Institution</th>
<th>Product type</th>
<th>Investment cost</th>
<th>Interest rate</th>
<th>Rollover term</th>
<th>Rollover due date</th>
<th>Maturity due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/04/2016</td>
<td>Bank of Queensland</td>
<td>Term Deposit - Fixed Rate</td>
<td>$3,000,000.00</td>
<td>3.15%</td>
<td>196 days</td>
<td>18/10/2016</td>
<td>18/10/2016</td>
</tr>
<tr>
<td>7/04/2016</td>
<td>ANZ</td>
<td>Floating Rate Note</td>
<td>$3,000,000.00</td>
<td>3.49%</td>
<td>91 days</td>
<td>7/07/2016</td>
<td>7/04/2017</td>
</tr>
<tr>
<td>18/04/2016</td>
<td>Commonwealth Bank of Australia</td>
<td>Floating Rate Note</td>
<td>$2,000,000.00</td>
<td>3.27%</td>
<td>91 days</td>
<td>18/07/2016</td>
<td>18/07/2019</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td><strong>8,000,000.00</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/04/2016</td>
<td>National Australia Bank Limited</td>
<td>Term Deposit - Fixed Rate</td>
<td>$334,622.59</td>
<td>2.67%</td>
<td>91 days</td>
<td>4/07/2016</td>
<td>4/07/2016</td>
</tr>
<tr>
<td>7/04/2016</td>
<td>Newcastle Permanent Building Society</td>
<td>Floating Rate Note</td>
<td>$2,000,000.00</td>
<td>3.62%</td>
<td>91 days</td>
<td>7/07/2016</td>
<td>7/04/2020</td>
</tr>
<tr>
<td>15/04/2016</td>
<td>Greater Building Society Limited</td>
<td>Term Deposit - Fixed Rate</td>
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<td>3.30%</td>
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<td>91 days</td>
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</tr>
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<td>91 days</td>
<td>18/07/2016</td>
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<td>Floating Rate Note</td>
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<td>90 days</td>
<td>25/07/2016</td>
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<td>90 days</td>
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<td>24/04/2019</td>
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<td>National Australia Bank Limited</td>
<td>Term Deposit - Floating Rate</td>
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<td>3.32%</td>
<td>90 days</td>
<td>25/07/2016</td>
<td>23/01/2020</td>
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<td>26/04/2016</td>
<td>National Australia Bank Limited</td>
<td>Term Deposit - Fixed Rate</td>
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<td>Macquarie Bank</td>
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<td>91 days</td>
<td>26/07/2016</td>
<td>26/10/2018</td>
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<td>Rabobank</td>
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<td>27/07/2016</td>
<td>27/02/2016</td>
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<td>Westpac Banking Corporation</td>
<td>Floating Rate Note</td>
<td>$4,000,000.00</td>
<td>3.24%</td>
<td>91 days</td>
<td>28/07/2016</td>
<td>28/10/2019</td>
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<td><strong>$1,158,002.98</strong></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

I certify the investments detailed above have been made in accordance with the Local Government Act 1993, the Local Government (General) Regulation 2009, and Council’s Investment Policy.

Glen Coulson
Responsible Accounting Officer
## Schedule of Investment movements

### 1 March 2016 to 31 March 2016

<table>
<thead>
<tr>
<th>Date</th>
<th>Institution</th>
<th>Product type</th>
<th>Investment cost $</th>
<th>Interest rate %</th>
<th>Rollover term Days</th>
<th>Rollover due date</th>
<th>Maturity due date</th>
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</thead>
<tbody>
<tr>
<td>8/03/2016</td>
<td>Beyond Bank</td>
<td>Term Deposit - Fixed Rate</td>
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<td>17/01/2017</td>
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<td>22/03/2016</td>
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<td>Floating Rate Note</td>
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<td>93</td>
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<td>National Australia Bank Limited</td>
<td>Term Deposit - Fixed Rate</td>
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### Rollover Investments

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<th>Product type</th>
<th>Investment cost $</th>
<th>Interest rate %</th>
<th>Rollover term Days</th>
<th>Rollover due date</th>
<th>Maturity due date</th>
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<td>Westpac Banking Corporation</td>
<td>Term Deposit - Floating Rate</td>
<td>2,000,000.00</td>
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<td><strong>62,019,437.48</strong></td>
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</table>

### Total

| **62,019,437.58** | **62,019,437.48** |

I certify the investments detailed above have been made in accordance with the Local Government Act 1995, the Local Government (Financial) Regulation 2005, and Council’s Investment Policy.
Communications and Engagement
Monthly Performance Report
May 2016
Communications and Engagement

The proposed light rail project for Newcastle continued to be a focus with the public exhibition of the Review of Environmental Factors by Transport for NSW closing this month. The Communications team generated media interest in its comparisons of Council’s preferred vision to the REF. Media reported our concerns with the proposal including a major loss of parking, the lack of cycleways and reduced ability to activate streetscapes with outdoor dining and the likelihood that the design would create a barrier in the centre of Hunter St due to a raised kerb for the light rail tracks. This would have a negative impact on Civic Park as a result of related traffic adjustments.

The Communications team provided media coordination and communications support for two launches: the opening of Council’s digital library café space, Civic Digest, and the opening of the Black White & Restive (BW&R) Exhibition at Newcastle Art Gallery. The Civic Digest launch received positive traditional and social media coverage, with news stories and editorials on this unique service. Promotional work ahead of BW&R resulted in strong launch attendance and media interest from both print and broadcast media, which is ongoing.

Publicity generated for BW&R included a cover feature in the Newcastle Herald’s Weekender magazine, news articles and the full page photo gallery of the opening included in the social pages. Publicity in the first month since the opening of Civic Digest, included a feature in the Herald’s Food & Wine section and a full page photo gallery in the social pages of an event.

The reopening of the BHP Gallery at the Museum resulted in positive coverage in local media.

An analysis of coverage produced in May found 368 items. Newspapers had the highest volume (at 49% of the total volume) and the highest cumulative audience.

Communications worked to inform the community of current infrastructure projects including preparing a promotional video on 50% completion of the Bathers Way project, Newcastle’s first combined cycleway and pedestrian crossing, shared pathway projects at Islington Park and at the Scholey Street overpass Mayfield, and stormwater drainage improvements at Claremont Reserve Adamstown Heights and Little Beach Stockton.

Infrastructure related programs and events included Cycle Skills and Bike Maintenance Workshops, a Local Discovery Rides event, the Ironbark Creek Community Catchment Crawl and the Marine Discovery Series.

Publicity generated for BW&R included a cover feature in the Newcastle Herald’s Weekender magazine, news articles and the full page photo gallery of the opening included in the social pages. Publicity in the first month since the opening of Civic Digest, included a feature in the Herald’s Food & Wine section and a full page photo gallery in the social pages of an event.

Communications Projects

1. Delivery program, operational plan, fees and charges publications
2. Council’s response to the light rail REF
3. Celebrating 50 years of Water Safety programs
4. Promotion of sponsorship and grants programs
5. Launch of Newcastle Art Gallery Black and White Restive
6. First month of Civic Digest
7. Lord Mayor’s Prayer Breakfast
8. Bathers Way project 50% complete
9. Newcastle Marine Discovery Series
10. Ironbark Creek projects
11. Newcastle War Memorial Cultural Centre windows upgrade
12. Stockton river wall repairs
13. Council Admin Centre building facade and driveway upgrades

Graphic Design Projects

There were 25 design projects including:

1. 2016/17 Waste Calendar for delivery to all households
2. Collateral for individual events under the quarterly What’s On programs for Newcastle Regional Libraries and Newcastle Museum
3. Promotional materials for Wallsend Library’s 10th birthday
4. Promotional and advertising collateral for individual shows in the Civic Theatre 2016 Season

Top five web pages

1. Positions Vacant/Careers
2. Newcastle Library
3. Bulk Waste
4. Current approved DAs
5. Contact us

94,496 visitors to newcastle.nsw.gov.au
Engagement Activities

Our most significant engagement projects in May were undertaking the Waste Strategy Survey and planning for the Community Survey, Council’s biennial tracking survey which has been carried out since 1993. Membership of Council’s community reference panel, Newcastle Voice stands at 2,485 active members. This figure is 1.7% of the Newcastle LGA’s population over 16 years of age based on ABS Census Data 2011. A monthly newsletter is distributed to all panel members.

Current Engagement Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Waste Services: Survey aiming to identify improvements in waste data collection methods, forecasting and analysis required to deliver the Strategy vision, themes and objectives.</td>
<td>Reporting</td>
</tr>
<tr>
<td>Beach Kiosks: Survey objective is to determine satisfaction with beach kiosks, including products, pricing, opening hours and customer service.</td>
<td>Reporting</td>
</tr>
<tr>
<td>Community Survey: Biennial assessment of community satisfaction and importance ratings of Council performance, services and facilities.</td>
<td>Reporting</td>
</tr>
<tr>
<td>Safe City: Online survey and geomapping tool regarding perceptions of safety in Newcastle.</td>
<td>Underway</td>
</tr>
<tr>
<td>Bibby Street: Online survey of Bibby Street residents regarding traffic calming preferences.</td>
<td>Underway</td>
</tr>
<tr>
<td>Civic Park Plan: Gaining community and stakeholder input on future planning for Civic Park.</td>
<td>Reporting</td>
</tr>
<tr>
<td>Civic Theatre Subscriptions: Online survey of subscribers and intercept surveys with non-subscribers conducted on site at performances in June and July.</td>
<td>Underway</td>
</tr>
<tr>
<td>Customer Service Centre: Online survey to determine satisfaction with Council’s customer service centre. Survey to be conducted July - Aug.</td>
<td>Planning</td>
</tr>
<tr>
<td>Domain Plans: Workshops conducted in Beresfield, Stockton (Aug) and Wallsend (Oct).</td>
<td>Planning</td>
</tr>
<tr>
<td>Victory Parade: Online survey of residents who use/are affected by the pedestrian crossing trial. Survey to be conducted Aug - Sept.</td>
<td>Planning</td>
</tr>
<tr>
<td>Swan Street: Workshops with residents on preferences regarding trees and parking. Workshops to be conducted in Aug - Sept.</td>
<td>Planning</td>
</tr>
<tr>
<td>Smart City: Engagement project to assist in development of a Smart City strategy.</td>
<td>Planning</td>
</tr>
</tbody>
</table>
Customer Service

Monthly Performance Report

May 2016

Monthly Overview

- The average phone enquiry handle time increased to just over 7 minutes (the April result was 6.5 minutes). This originally appeared to be linked to the hiring of new recruits, however further investigations are being made as the root cause does not appear to be new recruits alone. Counter enquiries continued to be faster at around 20.5 mins per transaction.

- Customer wait times for phone calls increased from 86 seconds in April to 119 seconds in May. Wait times stayed constant for front counter enquiries. The average customer waited just over 2 minutes for a phone enquiry, with counter based enquiries being a little over 2.5 minutes.

- Phone servicing results by the CCC started the month with similar results to those seen towards the end of April. From about mid-month the service improved to average in the high 50% range, with the CCC achieving service level (80% of calls answered in 30 secs) on 25 May. The lower service results seen early in the month can be linked to the rates notices mail-out.

- Late in the month there was around 30 minutes of downtime where no one could call the Council via the IVR. This technical issue was caused by a server failure outside of Council infrastructure. Around the same time there were other data capture issues resulting in the loss of about 48 hours of telephony related data. This issue did not impact the data in this report as our Workforce Planning specialist was able to obtain that information through other means.

- Phone quality scores results saw a drop from 55% to 46%. Investigations are being made as to the causes for the drop in the results. Some of the lower scores can be linked to the learning curve associated with new agents.

- Counter and back office areas processed just under 1,000 payments in May, totalling $695,000 in revenue. Application processing has improved however it is not yet at optimum levels.

- The CCC received 7 compliments across the month. Some verbatim comments are below:-
  - "...prompt and efficient service."
  - "...very courteous and went out of her way to understand my problem and offer solutions."
  - "...most helpful Council staff member she had ever spoken to."

Phone Performance:
### Metric

<table>
<thead>
<tr>
<th></th>
<th>Current Month</th>
<th>YTD Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall calls received</td>
<td>9,504</td>
<td>49,543</td>
</tr>
<tr>
<td>Average Wait Time (sec)</td>
<td>119</td>
<td>122</td>
</tr>
<tr>
<td>Average Handle Time (sec)</td>
<td>427</td>
<td>423</td>
</tr>
<tr>
<td>GOS</td>
<td>43.68%</td>
<td>38.58%</td>
</tr>
<tr>
<td>Quality % overall:</td>
<td>46.32%</td>
<td>49.62%</td>
</tr>
<tr>
<td>TCPH / Productivity</td>
<td>8.3</td>
<td>8.3</td>
</tr>
</tbody>
</table>

### Phone Performance by Queue: (Calls to CCC Only)

<table>
<thead>
<tr>
<th>Metric</th>
<th>Calls Received</th>
<th>Avg. Speed Answer</th>
<th>Avg Handle Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animals &amp; Parking</td>
<td>1,099</td>
<td>124</td>
<td>464</td>
</tr>
<tr>
<td>Depot</td>
<td>572</td>
<td>97</td>
<td>339</td>
</tr>
<tr>
<td>Development &amp; Building</td>
<td>2,358</td>
<td>126</td>
<td>400</td>
</tr>
<tr>
<td>Other Enquiries</td>
<td>2,979</td>
<td>110</td>
<td>396</td>
</tr>
<tr>
<td>Rates</td>
<td>1,655</td>
<td>136</td>
<td>367</td>
</tr>
<tr>
<td>Waste</td>
<td>491</td>
<td>156</td>
<td>393</td>
</tr>
</tbody>
</table>
Counter Performance:

<table>
<thead>
<tr>
<th>Metric</th>
<th>Current Month</th>
<th>Same Month Last Year</th>
<th>YTD Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall transactions</td>
<td>980</td>
<td>998</td>
<td>4,820</td>
</tr>
<tr>
<td>Average Wait Time (min:sec)</td>
<td>02:29</td>
<td>01:30</td>
<td>02:50</td>
</tr>
<tr>
<td>Average Service Time (min:sec)</td>
<td>20:29</td>
<td>16:02</td>
<td>20:13</td>
</tr>
<tr>
<td>Customer served under five mins</td>
<td>82.39%</td>
<td>92.68%</td>
<td>80.39%</td>
</tr>
</tbody>
</table>

Top Five Transactions:
By volume -
1. Other Enquiries - 222
2. Payments - 212
3. Other Type of Application - 195
4. Appointments - 170
5. Companion Animals - 71
Processing Performance:

<table>
<thead>
<tr>
<th>Applications</th>
<th>Current Month</th>
<th>YTD Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carried from last month</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td># Received</td>
<td>331</td>
<td>1,447</td>
</tr>
<tr>
<td># Processed</td>
<td>228</td>
<td>1,245</td>
</tr>
<tr>
<td>On hand at end of month</td>
<td>225</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Payments</th>
<th>Current Month</th>
<th>YTD Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Back Office</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Payments</td>
<td>387</td>
<td>1795</td>
</tr>
<tr>
<td>Total Value</td>
<td>$260,213.37</td>
<td>$1,729,907.44</td>
</tr>
<tr>
<td><strong>Counter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Payments</td>
<td>603</td>
<td>2695</td>
</tr>
<tr>
<td>Total Value</td>
<td>$433,084.77</td>
<td>$2,846,827.84</td>
</tr>
</tbody>
</table>
Records Management

Monthly Overview:

Incoming correspondence for May was 4,985 being 20% more than April 2016 and 55% more than the same month last year (3,212).

Incoming Correspondence Performance: (All figures are based on hard copy electronic correspondence, e-mail and applications with payments)

<table>
<thead>
<tr>
<th>Metric</th>
<th>Current Month</th>
<th>YTD</th>
<th>Monthly Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correspondence registered</td>
<td>4,985</td>
<td>46,564</td>
<td>4,233.09</td>
</tr>
<tr>
<td>Correspondence registered per day</td>
<td>226.59</td>
<td>n/a</td>
<td>203.94</td>
</tr>
<tr>
<td>Average backlog amount (batches)</td>
<td>10</td>
<td>n/a</td>
<td>3.70</td>
</tr>
<tr>
<td>Average backlog delay (days)</td>
<td>5</td>
<td>n/a</td>
<td>2.45</td>
</tr>
<tr>
<td>Registered within KPI</td>
<td>3,000</td>
<td>31,047</td>
<td>3,731.55</td>
</tr>
</tbody>
</table>

ECM Helpdesk Performance:
Both KPI were achieved in May.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Current Month</th>
<th>YTD</th>
<th>Monthly Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECM helpdesk requests received</td>
<td>99</td>
<td>1,295</td>
<td>117.73</td>
</tr>
<tr>
<td>Average resolution time (days)</td>
<td>8.70</td>
<td>n/a</td>
<td>3.93</td>
</tr>
<tr>
<td>Resolved within KPI %</td>
<td>113</td>
<td>1,363</td>
<td>123.91</td>
</tr>
</tbody>
</table>

Outgoing Correspondence:
Overall charges were $12,349.73 for May and are slightly lower compared to the previous month and slightly more than the current monthly average.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Current Month</th>
<th>YTD</th>
<th>Monthly Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Postage cost $</td>
<td>12,304.52</td>
<td>122,627.98</td>
<td>11,147.99</td>
</tr>
</tbody>
</table>

Archives Management:
There were 169 file requests in May of which the KPI of supplying them within two working days was achieved 100% of the time. Together with the 169 file requests there were a further 170 refiles that make up the 339 total for “Archival retrievals and refiles” this month. These refiles include not only files being returned but also adding new filing attachments to files and filing away new Complying DA files.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Current Month</th>
<th>YTD</th>
<th>Monthly Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requests for archived material</td>
<td>169</td>
<td>1,520</td>
<td>138.18</td>
</tr>
<tr>
<td>Boxes received for archiving</td>
<td>10</td>
<td>374</td>
<td>34.00</td>
</tr>
<tr>
<td>Boxes catalogued and stored</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Glossary:

Average Speed of Answer (ASA):
The length of time in seconds that the caller waited in queue before their call was answered.

Average Handle Time (AHT):
The length of time in seconds that a call took to process, including Total Talk Time (TTT) and After Call Work (ACW).

Grade of Service (GOS):
The percentage of calls answered within a specified amount of seconds. The CCC target is to answer 80% of calls within 30 seconds.

Quality:
The percentage score for a call assessed against the CCC Quality Call Description.

True Calls Per Hour (TCPH):
A measure of agent productivity based on the number of calls answered per hour on average less any time spent waiting for calls.
ORDINARY COUNCIL MEETING
28 JUNE 2016

CCL 28/06/16 -
YOUNG STREET CARRINTON
STREETSCAPE UPGRADE EXHIBITION

Attachment A: Young Street Carrington Streetscape Upgrade Plan (Option 1)
Attachment B: Young Street Carrington Streetscape Upgrade Plan (Option 2)
Attachment C: Newcastle Voice Workshop results May 2015
Attachment D: Newcastle Voice Information Session February 2016
**Option 1**

**Young Street, Carrington Streetscape Upgrade**

- Evergreen tree 6 to 8m in height
- Evergreen tree 8 to 12m in height
- Large tree

**General Notes:**
- Existing unique Street Furniture to be retained and reinstated
- New Bike racks to be added near cafes

<table>
<thead>
<tr>
<th>Category</th>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trees</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Car spaces</td>
<td>81</td>
<td>94</td>
</tr>
</tbody>
</table>

**Legend**
- Stage 1 Cowper Street - Victoria Street
- Stage 2 Victoria Street - Forbes Street
- Footpath
- Road
- Driveway
- Road centreline
- Large Tree
- Evergreen tree (under overhead powerlines)
- Low ground cover planting beds
- Kerb ramp
- Raised pedestrian crossing
- Traffic speed control device
- Overhead awning/roof
- Bus/Taxi zone
- Overhead powerlines
- Electricity poles
- Street lights
- Underground services
- Underground Telstra
- Telstra phone boxes
- Relocated Ornamental Posts
- Eatery/Cafe
- Commercial zoning
- Residential Zoning
- Park/Open Space
- Heritage building
- Proposed trees
- Existing trees
- Proposed car spaces
- Existing car spaces

**Large Tree:** Brush Box (Lophostemon confertus)
Evergreen tree 8 to 12m in height

**Small Tree:** Tuckeroo (Cupaniopsis anacardioides)
Evergreen tree 6 to 8m in height
General Notes:
- Existing unique Street Furniture to be retained and reinstated
- New Bike racks to be added near cafes

<table>
<thead>
<tr>
<th>Existing trees</th>
<th>Proposed trees</th>
<th>Existing car spaces</th>
<th>Proposed car spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>27</td>
<td>81</td>
<td>87</td>
</tr>
</tbody>
</table>

Large Tree: Brush Box (Lophostemon confertus) Evergreen tree 8 to 12m in height

Small Tree: Tuckeroo (Cupaniopsis anacardioides) Evergreen tree 6 to 8m in height

Option 2
Young Street, Carrington Streetscape Upgrade

The City of Newcastle
PO Box 489 Hunter Region Mall Centre Newcastle 2300

Scale: 1:250 @ A1
1:500 @ A3
Issued: 03/05/16
Young Street Reconstruction Project:
Workshop Results
May 2015
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<th>Page</th>
</tr>
</thead>
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<td>15</td>
</tr>
<tr>
<td>Top 3 values</td>
<td>15</td>
</tr>
<tr>
<td>Top 3 issues</td>
<td>16</td>
</tr>
<tr>
<td>Workshop observations</td>
<td>17</td>
</tr>
<tr>
<td>Participant feedback</td>
<td>18</td>
</tr>
<tr>
<td>Where to from here</td>
<td>19</td>
</tr>
</tbody>
</table>
Executive Summary

A community workshop was held to inform Carrington residents and businesses about, and obtain community feedback on, Council’s intention to undertake road and footpath reconstruction on Young Street. In total, 40 participants attended the session on Saturday 23 May 2015, 1pm - 3pm.

The workshop was facilitated by Council's community engagement team with presentations from Council's community engagement and infrastructure planning departments.

Workshop results revealed that the aspects of Young Street most highly valued by participants were the village atmosphere/community feel (22%), followed by trees (16%), wide footpaths (10%) and the availability of free parking (10%).

Workshop participants were asked to identify the top three issues for Young Street. The results show the main areas that need to be addressed are the footpath maintenance (28%) in particular the poor condition and inconsistent surface materials, followed by drainage (17%) and parking (16%).

The most preferred parking option for Young Street's commercial precinct was the current layout of 90° parking on both sides of the road.

The workshop outcomes will be considered during the design process. Council will hold a second workshop later this year to gather feedback on the design alternatives. Once the design is complete, it will be put on public exhibition for comment.
Community information sessions

Project background and scope

In the early-mid 1990s Council undertook a make-over of Young Street’s commercial area. Street trees planted in the roadway as part of this project grew vigorously causing damage to pipes, paths and road pavements. Over time this has resulted in trip hazards, localised flooding and interruption to services. Road safety issues include a non-compliant parking layout with inadequate manoeuvring space and traffic thresholds which are mistaken for pedestrian crossings. A number of requests have been received from the public regarding these issues.

Recurrent maintenance works are a bandaid solution and expensive to continually repeat. To adequately address the issues identified on Young Street, Council needs to undertake full road and footpath reconstruction. This will replace damaged and aging infrastructure, resolve parking and road safety issues and incorporate appropriate tree species. This work presents an opportunity to improve the functioning and presentation of the street and rejuvenate Carrington’s commercial area.

The Young Street Reconstruction Project has been broken up into two stages of completion. While concept designs will be undertaken for both stages at the same time, the stages will be separated when it comes to the construction phase. Stage 1 construction is due to commence July to December 2016 and Stage 2 July to December 2017 (subject to change).

![Figure 1 Project scope:](image)

Note: Scope area covers Young St from Forbes St to Cowper St North
Stage 1 is from Cowper St North to Victoria St and Stage 2 is from Victoria St to Forbes St
Stage 1 is deemed the commercial part of Young Street and Stage 2 residential.
Workshop objectives

The purpose of the community information session was to:

- inform Carrington residents and businesses about, and obtain community feedback on, Council’s intention to undertake road and footpath reconstruction on Young Street,
- present previous feedback received from the Carrington community about issues on Young Street, and
- discuss other issues that need to be considered in reconstructing Young Street.

Workshop agenda

The workshop was structured in two parts. The first part of the session was designed to inform participants about community engagement and issues identified by the Carrington community to date, management issues and design opportunities and constraints. The second part of the session involved workshop exercises designed to provide opportunities for participants to provide feedback on what they value about the area as well as identify any other issues for Council consideration. This model of workshop falls under the inform and consult categories of the IAP2 framework outlined in Newcastle City Council’s Community Engagement Framework.
Figure 3: Public Participation Spectrum, International Association of Public Participation

Young Street Reconstruction Project - Workshop Agenda
Saturday 23 May 2015, 1:00-3:00pm

<table>
<thead>
<tr>
<th>What</th>
<th>Who</th>
<th>How long</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome</td>
<td>Ashlee Cook</td>
<td>5mins</td>
</tr>
<tr>
<td>Community initiatives and issues</td>
<td>Natalie D’Arcy</td>
<td>10mins</td>
</tr>
<tr>
<td>Management issues</td>
<td>Darren Green / Karenne Jurd</td>
<td>20mins</td>
</tr>
<tr>
<td>Site analysis - opportunities and constraints</td>
<td>Sarah Horan</td>
<td>20mins</td>
</tr>
<tr>
<td>Values and issues activity</td>
<td>Ashlee / Natalie</td>
<td>45mins</td>
</tr>
<tr>
<td>Questions</td>
<td>Ashlee Cook</td>
<td>10mins</td>
</tr>
<tr>
<td>Next steps and close</td>
<td>Ashlee Cook</td>
<td>5mins</td>
</tr>
</tbody>
</table>

Figure 4 Workshop agenda
Promotion

The workshop was promoted in Carrington in a variety of ways:

- flyers were letterbox dropped to each household in Carrington. A copy of the flyer is included in Appendix I,
- four coreflutes were displayed along Young Street,
- the Community Engagement team liaised with Young Street businesses and left flyers for businesses to distribute to community members, and
- all Newcastle Voice online members residing in Carrington were emailed a personalised invitation to attend the workshop. In total, 41 Newcastle Voice members were invited and 9 attended the workshop (response rate of 22%).

All Councillors were invited to attend the workshop.

Registration

The flyers and coreflutes instructed community members wishing to attend to register prior to the workshop. Registrations were essential given capacity restrictions at the workshop venue (School Hall, Carrington Public School), for catering purposes, and also to ensure that participants were Carrington residents, businesses, or property owners. In total, 63 registrations were taken.

Attendance

In total, 40 members of the Carrington community attended the workshop. Council staff present at the workshop included:

- The Community Engagement team,
- Asset Program Coordinator - Environment,
- Program Development Coordinator - Roads,
- Landscape Architect
- Environmental Education Officer - Natural Assets

Councillor Posniak also attended for part of the workshop.
Informing the community

During the inform section of the workshop there were three presentations. The first outlined the community engagement that has occurred to date including an overview of community identified issues. The second presentation surrounded management issues which looked at drainage, tree issues (including; past tree planting practice, tree roots systems, underwire tree management), damaged road infrastructure, public safety and insurance claims and maintenance claims. It also outlined the Young Street reconstruction project objectives, that the project will provide:

- footpath and road reconstruction
- improved parking outcomes
- traffic management (calming, pedestrian, cycle & disability access)
- kerb & gutter and stormwater drainage reconstruction
- integrated tree replacement
- rejuvenated commercial precinct (street furniture)

The third presentation outlined the opportunities and constraints. This included identifying the attributes to Young Street currently as well as design considerations focusing on parking layout options, special parking and access requirements, overhead power and poles, underground services, traffic sight lines, soil types and surface levels, and budget.

For more information or to view the workshop presentation please see Appendix II.

Feedback summary

The workshop was divided into two engagement activities and will be reported as individual results and group work results.

The individual exercise required each participant to identify:

- the top three features that they value or like about Young Street
- what they would like to see in Young Street
- the top three issues they would like to see addressed on Young Street, as well as the opportunity to suggest solutions to these issues
- level of agreement with parking options for Young Street

This information was captured on a worksheet, presented in Appendix III.

To help complete the exercise, participants were taken on a guided walking tour of Young Street. Some participants opted to not participate in the walk and completed the exercise at the workshop premises.
Individual results

**Top 3 features valued or liked on Young Street**

The top three results overall for individual values were the village atmosphere/community feel (22%), followed by trees (16%), wide footpaths (10%) and the availability of free parking (10%). See Figure 5 for more detail.

![Figure 5: Top three features valued on Young Street](image-url)
Ideas for Young Street

Workshop participants were asked to identify what they would like to see in Young Street. This could be what is currently there and want to see more of, or ideas for what could be implemented. 25 responses to this question were received (63% of workshop participants). The most commented on theme was roads (29%) including addressing the traffic issues, parking options and pedestrian crossings. Roads were followed by trees (25%) and cultural items (21%). Please refer to Figure 6 for further detail.

Figure 6: What would you like to see in Young Street?
Top 3 issues to be addressed on Young Street

Workshop participants were asked to identify the top three issues for Young Street. The top three issues identified were footpath maintenance (28%) in particular the poor condition and inconsistent surface materials, followed by drainage (17%) and parking (16%). See Figure 7 for more detail.

Figure 7: Young St- Top three issues
Proposed solutions

Participants were asked to propose solutions for the three issues they identified for Young Street. Full verbatim responses are presented below in Table 1.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Sub - Issues</th>
<th>Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footpath maintenance</td>
<td>New footpath</td>
<td>Extended footpath at taxi stand in front of oriental which diminished width of young st and make turning dangerous Just do it Same style flat and integrated Cowper to Forbes Remedial works that are sustainable Decide on appropriate paving and replace Good safe footpaths, get to work and fix it Resurface all footpaths in one uniform style Created from trees Paving maybe porous paving State of footpaths Removable, replicable pavers Repaired to better condition No trip slip footpaths</td>
</tr>
<tr>
<td>Roads 27%</td>
<td>Traffic (calming features, confusion)</td>
<td>Items designed to meet purpose visually identified Turn current traffic calming into pedestrian crossings Traffic thru way</td>
</tr>
<tr>
<td>Parking (poor design)</td>
<td>90° front to kerb</td>
<td>Timed parking, rear to kerb</td>
</tr>
<tr>
<td></td>
<td>Timed parking 2 hours</td>
<td>Leave it at 90° parking</td>
</tr>
<tr>
<td></td>
<td>Angle in stage 1 and 2 45° parking</td>
<td>Lack of parking at peak times. Redesign parking 90° parking in Cowper/eastern side of Young outside old theatre Parallel parking on both sides Do not like 45° parking Resident parking and cyclist parking</td>
</tr>
<tr>
<td>Limit speeds (speed humps, reduce speed)</td>
<td>Dangerous port traffic speeding around the corner at cnr Young St through Howden St- trucks mount the kerb as narrow street. Poor visibility and kids on street - park at risk general school kid street crossing. Repairing, traffic calming.</td>
<td>Speed humps, speed limit to 20kph</td>
</tr>
</tbody>
</table>
## Water drainage (20%)

<table>
<thead>
<tr>
<th>Category</th>
<th>Specific Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flooding/ ponding</td>
<td><em>Something done for better drainage</em></td>
</tr>
<tr>
<td></td>
<td><em>No islands</em></td>
</tr>
<tr>
<td>Drainage</td>
<td><em>Created from trees</em></td>
</tr>
<tr>
<td></td>
<td><em>Appropriate tree planting and kerb/gutter rejuvenation</em></td>
</tr>
<tr>
<td></td>
<td><em>Storm water leaves in gutter</em></td>
</tr>
<tr>
<td></td>
<td><em>Fix it</em></td>
</tr>
<tr>
<td></td>
<td><em>New kerb and gutter all street</em></td>
</tr>
<tr>
<td></td>
<td><em>Stormwater remediation</em></td>
</tr>
</tbody>
</table>

## Trees (12%)

<table>
<thead>
<tr>
<th>Category</th>
<th>Specific Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trees</td>
<td><em>Small foliage trees on footpath edge large trees removed.</em></td>
</tr>
<tr>
<td></td>
<td><em>Figtree's on road way remove them</em></td>
</tr>
<tr>
<td></td>
<td><em>pruned a little better</em></td>
</tr>
<tr>
<td></td>
<td><em>Removal of tree’s</em></td>
</tr>
<tr>
<td></td>
<td><em>Plant compatible tree's to suit drainage</em></td>
</tr>
<tr>
<td></td>
<td><em>Create a planned tree structure plans</em></td>
</tr>
<tr>
<td></td>
<td><em>Smaller trees - less trees but integrated to Forbes</em></td>
</tr>
</tbody>
</table>

## Facilities (4%)

<table>
<thead>
<tr>
<th>Category</th>
<th>Specific Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace bus stop in Cowper St</td>
<td><em>Bus stop - put back that was taken away from Young/Cowper Street. Think about the elderly who can’t walk far</em></td>
</tr>
</tbody>
</table>

## Other (10%)

<table>
<thead>
<tr>
<th>Category</th>
<th>Specific Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Council ruin</td>
<td><em>Use our brain to make it better</em></td>
</tr>
<tr>
<td>Enhance streetscape</td>
<td><em>Visually daggy, look at Melbourne street scapes and get it</em></td>
</tr>
<tr>
<td>Power lines</td>
<td><em>Need to remove underground</em></td>
</tr>
<tr>
<td></td>
<td><em>Put underground</em></td>
</tr>
</tbody>
</table>

---

Note: Not all participants completed the issues section (74% completes). Some participants ranked issues but did not suggest any improvements.
Parking options feedback

Participants were asked to indicate their level of agreement with eight different parking options for Young Street using a five point scale. A mean score was calculated for each parking option, where a mean score of 1.0 indicates strong disagreement and a score of 5.0 indicates strong agreement. Participants also had the opportunity to outline in an open-ended question why they agreed or disagreed with each option. The survey was collected at the end of the workshop, we received 34 responses. Results from the first section of the exercise are as follows. The worksheet utilised by participants is included in Appendix III and verbatim comments in Appendix IV.

The option with the highest level of agreement was the current parking situation, 90° both sides (mean score of 3.5 out of 5), followed by 90° both sides rear to kerb (3.0 out of 5) and 45° both sides no median/trees (2.4 out of 5). Please refer to Figure 8 for mean scores for all parking options.

During the workshop the infrastructure planning team outlined that the current parking option does not meet legislative requirements as the street is too narrow. If 90° parking on both sides is selected, it may impinge on the existing structure and potentially footpaths. As shown in Figure 5 wide footpaths have been identified as an asset to Young Street. This issue will be taken into consideration during the concept design phase and addressed during the next stage of consultation with community.

![Parking options (Mean Scores)](image)

Figure 8: Parking options
Group workshop activity results

The second section of the workshop involved participants breaking into groups with an average six people in each group. The groups where asked to identify their overall top three values and issues to submit on giant post-its as a group. Each group wrote their top three values on orange post-its and top three issues on pink post-its. The results were collected and placed on the wall in themes. Following this exercise, the Community Engagement team facilitated a whole group discussion where participants were able to discuss results and identify anything they thought may have been overlooked.

**Group work: Top three values**

When asked what the groups value, all groups (6 groups) addressed village atmosphere/community feel as a value along with footpaths (100%). Trees were the next most common value (67%) which was addressed by 4 out of 6 groups.

![Figure 9: Group work- values](image-url)
**Group work- Top three issues**

When asked what the top three issues were for Young St, all groups (6 groups) identified drainage (100%). Footpaths were the next most common issue (83%) which was addressed by 5 out of 6 groups, followed by parking (67%).

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drainage</td>
<td>100%</td>
</tr>
<tr>
<td>Footpath</td>
<td>83%</td>
</tr>
<tr>
<td>Parking</td>
<td>67%</td>
</tr>
<tr>
<td>Lack of pedestrian crossing</td>
<td>50%</td>
</tr>
<tr>
<td>Traffic</td>
<td>50%</td>
</tr>
<tr>
<td>Kerb/guttering</td>
<td>33%</td>
</tr>
<tr>
<td>flooding/ ponding</td>
<td>33%</td>
</tr>
<tr>
<td>Trees</td>
<td>33%</td>
</tr>
<tr>
<td>Powerlines</td>
<td>33%</td>
</tr>
</tbody>
</table>

**Figure 10: Group work- issues**
Workshop observations

This section outlines observations taken at the workshop. The following are additional items that were addressed in general discussion:

- **Parking:** The discussion surrounding parking indicated that parking capacity in most cases was adequate, except for lunchtime peak. Timed parking was recommended by a few participants to prevent all-day parkers.

- **Pedestrian crossings:** There were mixed opinions among participants about the locations and safety of the current pedestrian crossings. It was identified that crossings on Young Street are important and special consideration needs to be made when deciding the location of future crossings.

- **Speed limits:** The topic of vehicle speed limits was raised numerous times. It was suggested that the entire length of Young St be a 40kph neighbourhood traffic zone. It was suggested by another that the retail precinct be limited to 20kph, 40kph appeared to be an acceptable speed limit for most attendees.

- **Trees:** Issues were noted with the fig trees (circa 1996), where trip hazards, drainage and ponding issues have arisen in recent years. No-one objected to the proposal that all of the fig trees and some of the London Plane trees be replaced with a more suitable canopy species. One elderly woman stated that she had tripped in recent times. Another woman stated that she wrote a two-page letter to Council in 1996 urging them not to plant this variety of tree in the first place.

- **Power lines:** Many attendees requested that electricity be placed underground, however doing so was determined by Council staff to be well outside of the project's budget.

- **Bus stop:** Some participants didn't like the preceding relocation of bus stops in Young Street - bus users wanted something that is protected from the elements, central and accessible. Retailers didn't want bus stops placed directly in front of small retail businesses.
Participant feedback

Participants with email addresses were sent a feedback survey to complete after the workshop. These results assist in providing a better service in the future. The results show a high overall satisfaction with the workshop. Figure 11 shows the results as a mean score, the scale was 'strongly disagree' (1.0) to 'strongly agree' (5.0).

![Workshop: participant feedback diagram]

**Figure 11: Workshop participant feedback (n=9)**
Where to from here

A copy of this report will be made available to those (where an email address was provided) that registered interest in the workshop (including those that did not attend) and will be published on the Newcastle City Council completed engagements webpage. Those who did not supply an email but supplied a mobile number will be notified by text. Local stores along Young Street will also be given flyers notifying patrons where the report can be found.

The next step is for Council to begin the design process. Council will hold a second workshop later this year to gather feedback on the design alternatives. Once the design is complete, it will be put on public exhibition for comment.
Executive summary

A community information session was held to inform Carrington residents and businesses about, and obtain community feedback on, Council’s concept designs for the road and footpath reconstruction on Young Street. In total, 29 participants attended the session on Saturday 20 February 2016, 2pm - 3pm.

There were five additional community members that contributed feedback that could not attend on the day (in total 32 participants provided feedback on the concept designs). Please note that not all participants on the day gave feedback.

The information session was facilitated by Council's community engagement team, with presentations provided by Council's community engagement and infrastructure planning departments.

Information session attendees were asked to indicate their preferences regarding the concept designs and tree species selection.

Option 2 was the preferred design concept obtaining 17 votes. There were 13 votes for option 1 and two votes for neither.

The most popular smaller tree species was Tuckeroo, receiving 18 votes) followed by Watergum (10 votes). Three participants indicated that neither species was their preference.

Brush Box was the most popular of the larger tree species receiving 16 votes, followed by Illawarra Flame Tree (13 votes). Three participants indicated that neither species was their preference.

Council will consider the feedback on the design alternatives to inform the final design decisions. Once the design is complete, it will be put on public exhibition for comment.
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Table of Contents..................................................................................................................

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1. **Community information sessions**

1.1 **Project background and scope**

Young Street, Carrington’s main street, has street trees planted in the roadway. The trees have grown vigorously causing damage to pipes, paths and road pavements. Over time this has resulted in trip hazards, localised flooding and interruption to services. Road safety issues include a non-compliant parking layout with inadequate manoeuvring space and traffic thresholds which are mistaken for pedestrian crossings. A number of requests have been received from the public regarding these issues.

Recurrent maintenance works are a short term solution and expensive to continually repeat. To adequately address the issues identified on Young Street, Council needs to undertake full road and footpath reconstruction. This will replace damaged and ageing infrastructure, resolve parking and road safety issues and incorporate appropriate tree species. This work presents an opportunity to improve the functioning and presentation of the street and rejuvenate Carrington’s commercial area.

The Young Street reconstruction project is proposed to be delivered in two stages, once concept designs are completed. Stage 1 construction is due to commence July to December 2016 and Stage 2 July to December 2017 (subject to change and budget approval).

**Figure 1 Project scope:**

![Project Scope Diagram]

*Note: Scope area covers Young St from Forbes St to Cowper St North. Stage 1 is from Cowper St North to Victoria St and Stage 2 is from Victoria St to Forbes St. Stage 1 is deemed the commercial part of Young Street and Stage 2 residential.*
1.2 Information session objectives

The purpose of the community information session was to:

- present findings from first workshop (held on the 23 May 2015)
- present design options that Council is seeking feedback on; design concepts and tree selection preferences.

The information session falls under the inform and consult categories of the IAP2 framework outlined in Newcastle City Council's Community Engagement Framework.

Table 2 Public Participation Spectrum, International Association of Public Participation

<table>
<thead>
<tr>
<th>Inform</th>
<th>Consult</th>
<th>Involve</th>
<th>Collaborate</th>
<th>Empower</th>
</tr>
</thead>
<tbody>
<tr>
<td>To provide the public with balanced and objective information to assist them in understanding the problems, alternatives, opportunities and/or solutions.</td>
<td>To obtain public feedback on analysis, alternatives and/or decisions.</td>
<td>To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.</td>
<td>To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.</td>
<td>To place final decision-making and/or devolved budgets in the hands of the public.</td>
</tr>
<tr>
<td>We will keep you informed.</td>
<td>We will keep you informed, listen to acknowledge concerns and provide feedback on how public input influenced the decision.</td>
<td>We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.</td>
<td>We will look to you for direct advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.</td>
<td>We will implement what you decide.</td>
</tr>
</tbody>
</table>
1.3 Agenda

The agenda for the community information session is shown in Figure 2.

Figure 2 Information session agenda
Young Street Reconstruction project - information session agenda
Saturday 20 February 2016, 2:00-3:00pm

<table>
<thead>
<tr>
<th>What</th>
<th>Who</th>
<th>How long</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome and scope of project</td>
<td>Ashlee Soanes</td>
<td>5mins</td>
</tr>
<tr>
<td>Community Workshop feedback</td>
<td>Ashlee Soanes</td>
<td>5mins</td>
</tr>
<tr>
<td>Concept designs &amp; concept designs feedback</td>
<td>Sarah Horan/ Ashlee Soanes</td>
<td>30mins</td>
</tr>
<tr>
<td>Tree options &amp; tree selection</td>
<td>Sarah Horan/Ashlee Soanes</td>
<td>10mins</td>
</tr>
<tr>
<td>Questions, next steps and close</td>
<td>Ashlee Soanes</td>
<td>10mins</td>
</tr>
</tbody>
</table>

1.4 Promotion

The information session was promoted in Carrington in a variety of ways:

- flyers were letterbox dropped to each household in Carrington. A copy of the flyer is included in Appendix I
- two coreflutes were displayed along Young Street (see Appendix II)
- the Community Engagement team liaised with Young Street businesses and left flyers for businesses to distribute to community members.

1.5 Registration

The flyers and coreflutes instructed community members wishing to attend to register prior to the information session. Registrations were essential given capacity restrictions at the venue (School Hall, Carrington Public School) and to ensure that participants were Carrington residents, businesses, or property owners. In total, 21 registrations were taken prior to the event.

1.6 Attendance

In total, 29 members of the Carrington community attended the information session, although not all gave feedback. There were five community members that contributed feedback that could not attend on the day. In total, 32 participants provided feedback.

Council staff present at the workshop included:

- Community Engagement Officer
- Asset Program Coordinator - Environment
- Program Development Coordinator - Roads
- Landscape Architect
- Communications Manager.
2. **Feedback summary**

The information session had a consultation element with two individual activities. These were:

- selection of preferred design concept
- selection of preferred tree species.

This information was captured on a worksheet, presented in Appendix III.

### 2.1 Concept design option

Participants were asked to indicate their preference of concept designs. These results are presented in table 2.

Design option one consisted of more parking and less trees. Design option two consisted of more trees and less parking. Ultimately both options will result in the same or more trees and more parking than exist at present\(^1\). Concept design options are included in Appendix III.

**Table 2 Design concept options table**

<table>
<thead>
<tr>
<th></th>
<th>Trees Stage 1</th>
<th>Trees Stage 2</th>
<th>Total Trees</th>
<th>Parking spaces Stage 1</th>
<th>Parking spaces Stage 2</th>
<th>Total Parking spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXISTING</strong></td>
<td>20</td>
<td>4</td>
<td>24</td>
<td>69</td>
<td>14</td>
<td>83</td>
</tr>
<tr>
<td><strong>OPTION 1:</strong> More parking, less trees</td>
<td>15</td>
<td>9</td>
<td>24</td>
<td>69</td>
<td>25</td>
<td>94</td>
</tr>
<tr>
<td><strong>OPTION 2:</strong> More trees, less parking</td>
<td>18</td>
<td>9</td>
<td>27</td>
<td>64</td>
<td>25</td>
<td>89</td>
</tr>
</tbody>
</table>

Option two was the preferred design option with 17 votes to the 13 votes awarded to option one. See appendix V for verbatim comments.

**Table 3 Preferred design option**

<table>
<thead>
<tr>
<th>Preferred option</th>
<th>Count</th>
<th>N= 32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Option 2</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Neither</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Further to a question raised at the information session it was discovered that a driveway had been missed during the site analysis phase. Consequently total parking spaces have been recalculated to Existing = 83 81, Option 1 = 94 92 and Option 2 = 89 87. While the numbers of parking spaces are revised downwards by two, both of the proposed options are impacted equally and both continue to afford more parking spaces than exist at present. The revised numbers have been added to final plans. Updated plans available in appendix IV.
2.2 Tree species preferences

Attendees were asked to identify which tree species they preferred for planting in Young Street. The smaller tree options were Watergum and Tuckeroo. The larger tree options were Illawarra Flame and the Brush Box. Two different tree sizes are required due to the locations of the tree planting. The smaller trees will be planted where there are power lines and the larger species will be planted where there are no power lines.

Participants were also asked to provide the reasons for their selections.

2.2.1 Smaller tree option

Tuckeroo was the preferred option for the smaller tree, with 18 participants indicating this as their preference (see table 4). See appendix V for verbatim comments.

Table 4 Preferred small tree option

<table>
<thead>
<tr>
<th>Preferred option</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuckeroo</td>
<td>18</td>
</tr>
<tr>
<td>Watergum</td>
<td>10</td>
</tr>
<tr>
<td>Neither</td>
<td>3</td>
</tr>
<tr>
<td><strong>N= 31</strong></td>
<td></td>
</tr>
</tbody>
</table>

2.2.2 Larger tree option

Brush Box was the preferred option for the larger tree, with 16 participants indicating this as their preference (see table 5). See appendix V for verbatim comments.

Table 5 Preferred large tree option

<table>
<thead>
<tr>
<th>Preferred option</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brush Box</td>
<td>16</td>
</tr>
<tr>
<td>Illawarra Flame</td>
<td>13</td>
</tr>
<tr>
<td>Neither</td>
<td>3</td>
</tr>
<tr>
<td><strong>N= 32</strong></td>
<td></td>
</tr>
</tbody>
</table>
2.3 Information session questions

The following questions were raised during the information session. These questions and Council’s responses are shown in Table 6.

**Table 6 Information session questions and council response**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why no underground power lines?</td>
<td>We investigated undergrounding the power but unfortunately the cost was too prohibitive as there would need to be two separate underground installations, one in the footway for low voltage and one down the centre of the road for high voltage, also the reconnection into properties meterboxes or installation of private poles that currently have overhead power.</td>
</tr>
<tr>
<td>Bus stop - worried about where they will wait - aged units use bus stop</td>
<td>The bus stop will be retained in a similar location outside 85/85a and is being considered to only move a few metres north, subject to site constraints, Council will consider whether seating or shelter can be installed that doesn’t impinge on the covered café at number 87 Young Street.</td>
</tr>
<tr>
<td>Has this project been budgeted for?</td>
<td>Stage 1 of this project has been put forward for consideration in the Draft 2016/2017 Operational Plan which will be put to council for public exhibition.</td>
</tr>
<tr>
<td>Will this happen if it's not been approved yet?</td>
<td>If Council does not approve the project in the Draft 2016/2017 Operational Plan, the design will still continue to provide construction drawings and cost estimates for consideration in the next available annual budget.</td>
</tr>
<tr>
<td>Parking in the whole of Carrington is an issue</td>
<td>Noted, Council intends to maintain or increase parking within the site constraints.</td>
</tr>
<tr>
<td>Is there a plan for addressing traffic issues whilst construction takes place.</td>
<td>Traffic Management Plans are required for all construction works to manage public and workers safety including vehicles, deliveries, pedestrians and cyclists.</td>
</tr>
<tr>
<td>Timeframe for projects.</td>
<td>Dependant on Council approving the project to go ahead, Stage 1 hopefully will be approved for the financial year 2016/2017 and commence within that year.</td>
</tr>
<tr>
<td>Small sections to prevent shutting down the precinct.</td>
<td>The work will occur in small sections to limit the effect it has on the residents and businesses on Young Street. The construction team will liaise with business how the project is to be constructed.</td>
</tr>
<tr>
<td>Last time I asked about the asphalt being dug up - would it be possible to use cobble stone like Laman St on the road way</td>
<td>Council has considered the type of porous paving used in Laman Street, unfortunately infiltration in the Carrington groundwater table is not considered appropriate for environmental reason and the cost of cobble stone is too prohibitive to be used outside of the city centre precinct.</td>
</tr>
<tr>
<td>Use Carrington Facebook page for promotion.</td>
<td>Great idea! Noted.</td>
</tr>
<tr>
<td>What kind of contamination have you found on Young St?</td>
<td>Some hydrocarbon and heavy metals pollution.</td>
</tr>
<tr>
<td>What is Ashler?</td>
<td>Ashlar paving is a patterned concrete paving used throughout a number of suburban shopping and Newcastle CBD and the majority of Young Street. An example of it is outside the school.</td>
</tr>
<tr>
<td>Trees in road</td>
<td>Unsure if this is a question but yes, there will be trees planted in the road, between car parking on both sides of the street.</td>
</tr>
</tbody>
</table>
2.4 Where to from here

A copy of this report will be made available to those (if an email address was provided) that registered interest in the workshop, including those that did not attend, and will be published on the Newcastle City Council completed engagements webpage.

The next step is for Council to consider feedback and undertake civil design. Once the design is complete, it will be put on public exhibition for comment.
Appendix I - DL Flyer Invitation

Coming up in Carrington

Information session: Young St Reconstruction Project
When: Saturday, 20 February 2016
Time: 2pm to 3pm

Drop in session: Carrington tide gates
Date: Wednesday, 23 March 2016
Time: 5.30pm - 6.30pm
See inside for more details. For more information visit: www.newcastle.nsw.gov.au

Information session: Young St Reconstruction Project Round 2
Council plans to undertake road and footpath reconstruction on Young Street to address community concerns about parking, Reduced trip hazards, and pedestrian safety.
Carrington residents and businesses owners are invited to community information session to see design concepts and provide feedback.
When: Saturday, 20 February 2016
Time: 2pm to 3pm
Where: Carrington Public School, Young St Carrington
Registration essential: please email engage@ncc.newcastle.nsw.gov.au or call 4974 2725 to register.

YOUNG STREET RECONSTRUCTION PROJECT
Carrington Community Workshop
A community workshop was held in May 2015 to let Carrington residents and businesses know about Council’s intention to undertake road and footpath reconstruction on Young Street.
This was a great opportunity to hear from some of the locals on what they value about Young Street and what issues they would like to see addressed. In total, 40 people attended the session.

VALUES
- village atmosphere
- community feel
- trees
- wide footpaths
- availability of free parking

ISSUES
- 28% footpath maintenance
- drainage
- parking
- trees

PARKING OPTIONS
- 63% of people who came to the workshop preferred the current layout of 90° parking on both sides of the commercial precinct of Young Street.

Drop in session
Tide gates
Council is repairing 13 existing tide gates and installing three additional tide gates across six sites in Carrington.
The scope of work will include the construction of tide gate surrounds to make cleaning easier, improvement to the existing fresh racks and replacement of pit access covers.
The project aims to ensure the tide gate system is cost-effective in preventing tidal inundation while improving the performance of the stormwater network. It will also give maintenance staff easier access for future cleaning and maintenance.
This project is expected to commence in April 2016 for completion by the end of June, weather permitting. If you would like to find out more information about this project, please join us at our drop-in session for a cuppa.
Date: Wednesday 23 March 2016
Time: 5.30pm - 6.30pm
Location: Western end of Howden Street, Carrington - in park
Young Street
Reconstruction Project Round 2

Council plans to undertake road and footpath reconstruction on Young Street to address community concerns about parking, flooding, trip hazards, and pedestrian safety.

Carrington residents and business owners are invited to a community information session to see concepts Council has put together and provide feedback.

When: Saturday, 20 February 2016, 2-3pm
Time: 2-3pm
Where: Carrington Public School, Young St Carrington

Registration essential: Please email engage@ncc.nsw.gov.au or call 4974 2673 to register.
## Design concept options

*Please look at the printed design concepts for option 1 & 2 and then look at the table below.*

<table>
<thead>
<tr>
<th></th>
<th>Trees Stage 1</th>
<th>Trees Stage 2</th>
<th>Total Trees</th>
<th>Parking spaces Stage 1</th>
<th>Parking spaces Stage 2</th>
<th>Total Parking spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXISTING</strong></td>
<td>20</td>
<td>4</td>
<td>24</td>
<td>69</td>
<td>14</td>
<td>83</td>
</tr>
<tr>
<td><strong>OPTION 1:</strong></td>
<td><strong>15</strong></td>
<td><strong>9</strong></td>
<td><strong>24</strong></td>
<td><strong>69</strong></td>
<td><strong>25</strong></td>
<td><strong>94</strong></td>
</tr>
<tr>
<td>More parking, less trees</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OPTION 2:</strong></td>
<td><strong>18</strong></td>
<td><strong>9</strong></td>
<td><strong>27</strong></td>
<td><strong>64</strong></td>
<td><strong>25</strong></td>
<td><strong>89</strong></td>
</tr>
<tr>
<td>More trees, less parking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Which option do you prefer?  
   *Tick only one box*
   - Option 1: [ ]  
   - OR  
   - Option 2: [ ]

2. Please comment on your likes and dislikes for each option

   **What I like about option 1:**

   **What I like about option 2:**

   **What I don't like about option 1:**

   **What I don't like about option 2:**
### 3. Tree options: larger tree

The larger tree species will be planted where there are no power lines.

<table>
<thead>
<tr>
<th>Tree species</th>
<th>Description</th>
<th>Preference</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larger tree species</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Illawarra Flame Tree** | Common Name: Illawarra Flame Tree  
Botanical Name: *Brachychiton acerifolius*  
Tree Size: Variable size. Estimated height 8 - 12 metres and canopy width 6 - 8 metres.  
Leaves and Fruit: Semi-deciduous tree shedding its leaves in Spring/Summer before a spectacular show of coral-red flowers. This adaptation enables it to stand out from other trees and attract nectar-eating birds.  
Features: Versatile street tree, tolerant of weather extremes and adapted to a wide range of soil types and site conditions. | | Use the space provided to outline the reasons why you have or have not selected this tree. |
| **Brush Box** | Common Name: Brush Box  
Botanical Name: *Lophothemum confertus*  
Tree Size: Variable size. Estimated height 12 to 15 metres and canopy width 6 to 8 metres  
Leaves and Fruit: Glossy, dark-green leaves. Small white flowers and a bel shaped fruit.  
Features: An excellent long lived street and shade tree, it is hardy and robust and is adaptable to a wide range of urban conditions. This tree has minimal maintenance requirements. | | |

Information session: Young Street road & footpath reconstruction project
4. Tree options: smaller tree

The smaller tree species will be planted where there are power lines.

<table>
<thead>
<tr>
<th>Tree species</th>
<th>Description</th>
<th>Preference</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small tree species</td>
<td></td>
<td>Please tick your preferred option</td>
<td>Use the space provided to outline the reasons why you have or have not selected this tree.</td>
</tr>
</tbody>
</table>

- **Common Name**: Tuckeroo  
  **Botanical Name**: Cupaniopsis anacardioides  
  **Tree Size**: Variable size. Estimated height < 8 metres and canopy width 3 - 5 metres.  
  **Leaves and Fruit**: Dark green leathery leaves up to 12cm long. Attractive orange capsules in summer.  
  **Features**: A hardy and robust street tree that is adaptable to a wide range of urban conditions. Endemic to the area. Tolerant of salt and wind exposure.

- **Common Name**: Watergum  
  **Botanical Name**: Tristania laurina  
  **Tree Size**: Variable size. Estimated height < 6 metres and canopy width 3 to 8 metres  
  **Leaves and Fruit**: Dark green on top and pale underneath. Small yellow flowers and small round fruit capsules.  
  **Features**: An indigenous compact street and shade tree. It is hardy and robust and is adaptable to a wide range of urban conditions, including planting under wires.
Appendix IV - Updated plans

OPTION 1 - More Parking, Less Trees
Young Street, Carrington Streetscape Upgrade

The City of Newcastle
PO Box 449 Hunter Region LHS Centre Newcastle 2300

Young Street Reconstruction Project: Workshop Results May 2015 Page 13 of 23
## Appendix V - Verbatims

### Design concept options

Tables 5, 6 and 7 provide verbatim comments made on the two options by session participants after selecting their preferred option.

**Table 5 Comments made by participants preferring option one**

<table>
<thead>
<tr>
<th>Preferred option</th>
<th>What I like about option 1:</th>
<th>What I don’t like about option 1:</th>
<th>What I like about option 2:</th>
<th>What I don’t like about option 2:</th>
<th>Other comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>More parking</td>
<td>Planned tree in front of 89-81 will impact parking &amp; driveway access to existing businesses i.e bakery, bottleshop &amp; upstairs offices.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>More parking without negating (tree) shade &amp; maintains (med/long term) 'Green' streetscape</td>
<td>Retention of o'head power cables (continues) to spoil street scape.</td>
<td></td>
<td>Minimises capacity for 'Town Centre' to service local community (i.e no capacity for growth)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>More parking spaces</td>
<td>Trees too close to pedestrian crossing tend too hide pedestrians from motorists.</td>
<td></td>
<td></td>
<td>Less parking spaces</td>
</tr>
<tr>
<td>1</td>
<td>The greater No of car spaces with space for eateries</td>
<td>Neither option deals with the lack of parking in the rest of Young St North</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Relieves some parking pressures at that part of Young St</td>
<td>Retaining 90deg parking front does not address the red safety issue, I daily observe the near misses and had driving in the area. I urge Council’s traffic team to take a good look at this aspect. If it must be 90deg then rear in would be much safer.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Allows greater ease of access to businesses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>no comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>More parking</td>
<td>less trees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>More parking</td>
<td>less trees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Less trees. Enough damage caused by trees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>More car parking spaces but still plenty of trees.</td>
<td>May suggest less trees than planned.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Like trees in raised beds</td>
<td>Less car parking spaces still maybe 2 many trees in the plan.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Both plans appear to have a tree front of the driveway to the bakery &amp; liquor store?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>More car spaces and less trees</td>
<td></td>
<td>Avoid overhead wires. Plant small trees if possible, if you have to, maybe to 8ft tall and plant on the footpath to create more car spaces. Not to close to the kerb, so to avoid cars reversing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
More car spaces and less trees

Nose to kerb parking to many trees, should be rear to kerb parking

Less invasive - trees to be planted on footpath, to create more car spaces.

To many trees. If you want to plant high trees do something productive and plant trees at the end of Robertson St foreshore and put tables there, then there would be shade and picnic tables for people.

Table 6 Comments made by participants preferring option two

<table>
<thead>
<tr>
<th>Preferred option</th>
<th>What I like about option 1:</th>
<th>What I don’t like about option 1:</th>
<th>What I like about option 2:</th>
<th>What I don’t like about option 2:</th>
<th>Other comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>no comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>More trees, more parking - better balance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The extra parks in either, it will not make a difference</td>
<td>Trees make the street.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Not a fan of increased parking</td>
<td>Greater use of outdoor eating</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>speed humps!!!</td>
<td>More trees!!! As extra parking only required during working/men/women lunch time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>More trees - less cars.</td>
<td>All depends on the type of trees!!!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The loss of trees. Trees make the main street</td>
<td>More trees &amp; more parking - it will be devastating to lose the existing trees. We need so many planted to try to retain the beauty of the street</td>
<td>Small trees on the eastern side - we will lose the beautiful canopy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Options and Considerations</td>
<td>Decision</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>----------------------------</td>
<td>----------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Cars create pollution, let's do what we can to help the air. Most people can find a carpark, it's not that busy here!</td>
<td>More trees will increase the beauty value.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Visually more pleasing with more trees.</td>
<td>Speed control (new bumps)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>No comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>More trees</td>
<td>Option 2 is acceptable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>No comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The options are largely the same, except the three small trees on the eastern side of stage 1.</td>
<td>With tree numbers already reduced &amp; smaller trees selected, the option with more trees should get selected.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>With smaller trees and fewer numbers the footpaths will become too hot. More trees make sense if they are smaller.</td>
<td>More trees = more shade = more business. Proven actions! More trees = more clean air. More trees = softer appearance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Pedestrian considerations</td>
<td>Reduced shade. Harsh appearance! 90 degree parking can be dangerous</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Trees - international research has shown that heavily tree'd/green areas attract business/residents and are seen as desirable. People prefer shady parking areas. To remove the trees destroys a central component of the Carrington village &quot;feel&quot;</td>
<td>90 degree parking is seriously dangerous.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Fewer trees!</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parking is never really an issue as people are only parking short term.</td>
<td>More trees is much more visually attractive and enticing for people to come to the street.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I do not like either option, I feel the introduction of perpendicular parking is not responding to a community need and takes away the road space from cyclists. I do not feel that needs of cyclists were considered in either designs this is unfortunate given that Young St is currently heavily used by cyclists relative to other streets in the Newcastle LGA.</td>
<td>More trees creates a shady, friendly environment for families and would enhance Carrington's community feel.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Unnecessary amount of parking. I would prefer the space to be used for cycle paths and trees. More parking detracts from the community feel of carrington and would make me feel less safe walking around Young St with my children.</td>
<td>I don't feel like the extra parking spaces are necessary.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 7 Comments made by participant preferring neither option

<table>
<thead>
<tr>
<th>Preferred option</th>
<th>What I like about option 1:</th>
<th>What I don’t like about option 1:</th>
<th>What I like about option 2:</th>
<th>What I don’t like about option 2:</th>
<th>Other comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Nothing and suggest alternative options and the removal of all trees along the road</td>
<td>Suggestion (1) - Remove all trees from the road and if necessary, place small trees along the edge of the wide footpaths providing shade for pedestrians &amp; those sitting on the benches, while still providing adequate footpath for those with strollers &amp; walkers.</td>
<td>Nothing I suggest alternative options. And the removal of all trees along the street.</td>
<td>Suggestion (2) plant the trees where they would be better suited i.e. along the walk-ways at Honeysuckle waterfront thereby providing much needed shade for the many who frequent the area.</td>
<td></td>
</tr>
</tbody>
</table>

Tree species preferences

Smaller tree option

Tables 8, 9 and 10 provide verbatim reasons made for the small tree preference indicated.

Table 8 Reasons for selecting Tuckeroo for small tree

<table>
<thead>
<tr>
<th>Preference</th>
<th>Reason</th>
<th>Other comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuckeroo</td>
<td>We do not want hard seed pods - They are a tripping/slipping hazard.</td>
<td></td>
</tr>
<tr>
<td>Tuckeroo</td>
<td>? Like the look</td>
<td></td>
</tr>
<tr>
<td>Tuckeroo</td>
<td>The presence of such a large Batt population</td>
<td></td>
</tr>
<tr>
<td>Tuckeroo</td>
<td>Why do we have to have a preference of one over the other? Why not have a variety? Or alternative plantings?</td>
<td>The six trees on the intersections of Young/Victoria and Young/Howden should match trees planted in the adjacent Jubilee Park for consistent and unified look.</td>
</tr>
<tr>
<td>Tuckeroo</td>
<td>appears to have a greener &amp; shadier look</td>
<td></td>
</tr>
<tr>
<td>Tuckeroo</td>
<td>These trees look nice.</td>
<td></td>
</tr>
</tbody>
</table>
### Watergum

**Table 9 Reasons for selecting Watergum for small tree**

<table>
<thead>
<tr>
<th>Preference:</th>
<th>Reason</th>
<th>Other comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watergum</td>
<td>Shade tree</td>
<td></td>
</tr>
<tr>
<td>Watergum</td>
<td>indigenous</td>
<td>Tuckeroo - exotic specimen?</td>
</tr>
<tr>
<td>Watergum</td>
<td>indigenous</td>
<td></td>
</tr>
<tr>
<td>Watergum</td>
<td>Looks like a tree</td>
<td></td>
</tr>
<tr>
<td>Watergum</td>
<td>Lets get a new council arborist. Best of two poor choices. Plant this tree on both sides of the street</td>
<td></td>
</tr>
<tr>
<td>Watergum</td>
<td>For the yellow flowers</td>
<td>Tuckeroo - Like the orange capsules</td>
</tr>
</tbody>
</table>

### Neither

**Table 10 Reasons for selecting neither small tree**

<table>
<thead>
<tr>
<th>Preference:</th>
<th>Reason</th>
<th>Other comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neither</td>
<td>Each tree planted equals one less car parking space. Trees require maintenance trimming etc. Trees provide danger of uprooting already damaged footpaths and street. Shedding leaves, fruit capsules and flowers require removal and black the drainage along gutter.</td>
<td></td>
</tr>
<tr>
<td>No opinion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Either</td>
<td>I'm not an arborist so don't know how to discriminate between the options. I do know that first batch are a real issue in the Carrington Area so whatever trees are selected that factor needs to be taken into account.</td>
<td></td>
</tr>
</tbody>
</table>
Larger tree option

Tables 11, 12 and 13 provide verbatim reasons made for the small tree preference indicated.

**Brush Box**

Table 11 Reasons for selecting Brush Box for large tree

<table>
<thead>
<tr>
<th>Preference</th>
<th>Reason</th>
<th>Other comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brush Box</td>
<td>a well proven/poulon/attractive street tree throughout Aust.</td>
<td></td>
</tr>
<tr>
<td>Brush Box</td>
<td>Like the solid green canopy</td>
<td>Illawarra - concerned about the leaves dropping</td>
</tr>
<tr>
<td>Brush Box</td>
<td>Less dropping of foliage</td>
<td>Illawarra - To many leaves that block up the drains. Bring back the &quot;Carrington&quot; palm trees i.e as in medium strip Robertson St</td>
</tr>
<tr>
<td>Brush Box</td>
<td>I hope they grow quickly and you acquire large trees to start.</td>
<td></td>
</tr>
<tr>
<td>Brush Box</td>
<td>Nice cover - plenty of shade</td>
<td></td>
</tr>
<tr>
<td>Brush Box</td>
<td>Evergreen + full/thick leaves</td>
<td></td>
</tr>
<tr>
<td>Brush Box</td>
<td>Similar to figs. Green all year.</td>
<td></td>
</tr>
<tr>
<td>Brush Box</td>
<td>More dense cover</td>
<td></td>
</tr>
<tr>
<td>Brush Box</td>
<td>Better shade tree</td>
<td>The six trees on the intersections of Young/Victoria and Young/Howden should match existing tees in Jubilee Park.</td>
</tr>
<tr>
<td>Brush Box</td>
<td>Bigger canopy</td>
<td></td>
</tr>
<tr>
<td>Brush Box</td>
<td>Bigger canopy</td>
<td></td>
</tr>
</tbody>
</table>
**Illawarra Flame Tree**

Table 12 Reasons for selecting Illawarra Flame Tree for large tree

<table>
<thead>
<tr>
<th>Preference</th>
<th>Reason</th>
<th>Other comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illawarra</td>
<td>The colour variety. The semi-deciduous 1 like the extra sun in winter.</td>
<td></td>
</tr>
<tr>
<td>Illawarra</td>
<td>I prefer the additional colour and the semi deciduous option. Whatever trees are selected we need to remember the challenge of the different drainage in the area - particularly the amount of leaves that fall.</td>
<td></td>
</tr>
<tr>
<td>Illawarra</td>
<td>Why does there need to be a preference? Why not have each, alternatively planted?</td>
<td></td>
</tr>
<tr>
<td>Illawarra</td>
<td>Semi-deciduous</td>
<td>Brush Box - will drop leaves constantly</td>
</tr>
<tr>
<td>Illawarra</td>
<td>Beautiful tree + semi deciduous</td>
<td>Brush Box - too much spread like a fig. Need a new council arborist. Both not best choice.</td>
</tr>
<tr>
<td>Illawarra</td>
<td>Best of a bad bunch will attract bats and problems for all</td>
<td></td>
</tr>
<tr>
<td>Illawarra</td>
<td>Looks nice but is to high and causes to much fallout.</td>
<td></td>
</tr>
<tr>
<td>Illawarra</td>
<td>Very attractive and colourful</td>
<td></td>
</tr>
<tr>
<td>Illawarra</td>
<td>I think these trees are very striking and would enhance Young st's visual appeal.</td>
<td></td>
</tr>
</tbody>
</table>

**Neither**

Table 13 Reasons for selecting neither large tree option

<table>
<thead>
<tr>
<th>Preference</th>
<th>Reason</th>
<th>Other comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neither</td>
<td>Each tree planted equals one less car parking space. Requires maintenance trimming etc. Danger of uprooting already damaged footpaths &amp; street. Shedding leaves require removal and block the drainage along gutters.</td>
<td></td>
</tr>
</tbody>
</table>
CCL 28/06/16
AMENDMENT TO NEWCASTLE DEVELOPMENT CONTROL PLAN 2012 - DEVELOPMENT CONTROLS FOR THE NON-LEASED PARTS OF THE PORT OF NEWCASTLE

Attachment A: Draft Amendments to Newcastle DCP 2012
Draft amended Section 1.00 Introduction
Draft amended Section 3.13 Industrial Development
Draft amended Section 7.09 Outdoor Advertising and Signage
Draft amended Section 9.00 Glossary
1.00 Introduction

Title

The name of this plan is Newcastle Development Control Plan 2012.

Commencement

Newcastle Development Control Plan 2012 commenced on 15 June 2012.

Amendment history

<table>
<thead>
<tr>
<th>Version Number</th>
<th>Date Adopted by Council</th>
<th>Commencement Date</th>
<th>Section</th>
<th>Amendment Type</th>
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<tbody>
<tr>
<td>1</td>
<td>15/11/2011</td>
<td>15/06/2012</td>
<td>All New Sections</td>
<td>All Adopted</td>
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<tr>
<td>2</td>
<td>17/07/2012</td>
<td>30/07/2012</td>
<td>3.01 Subdivision</td>
<td>Amended</td>
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<td></td>
<td></td>
<td>3.02 Single Dwellings</td>
<td>Amended</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6.13 Precinct Maps</td>
<td>Amended</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7.01 Building Design Criteria</td>
<td>Amended</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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Note: Council’s website contains the latest most up-to-date version of this development control plan. Wherever possible, it is recommended that the web version be used. However, if using a printed or saved copy (uncontrolled document), please first check Council’s website or contact Council’s Development Duty Officer on Ph 4974 2036 to ensure currency of that copy.
Purpose of this Development Control Plan

The purpose of this Development Control Plan is to:

1. Provide detailed provisions relating to matters of significance to The City of Newcastle to be considered by Council when exercising its environmental assessment and planning functions under Part 4 of the *Environmental Planning and Assessment Act 1979*.

2. Expand upon the aims, objectives and other provisions of the Newcastle Local Environmental Plan 2012.

3. Provide detailed criteria for the assessment of development applications.

4. Identifies notification requirements in accordance with section 74C(c) of the *Environmental Planning & Assessment Act 1979*.

Relationship to legislation, other plans, and policies

This Development Control Plan:

- was prepared in accordance with Section 74C of the *Environmental Planning and Assessment Act, 1979* and Clause 16 of the *Environmental Planning and Assessment Regulations 2000*

- identifies further detail of Council’s requirements for local development seeking consent under Newcastle Local Environmental Plan 2012 or *State Environmental Planning Policy (Three Ports) 2013*

- is generally consistent with the provisions of Newcastle Local Environmental Plan 2012 and other applicable Environmental Planning Instrument/s (EPI), however, in the event of any inconsistency, the requirements of the EPI will prevail to the extent of the inconsistency

- does not apply, in whole or part, where specifically excluded by an EPI as per Section 74E (3) of the *Environmental Planning and Assessment Act 1979*

- repeals and replaces the whole of Newcastle Development Control Plan 2005

- is applied in conjunction with other Council development guidelines, policy, and/or technical manuals, where identified.

Note: Environmental Planning Instruments may include State Environmental Planning Policies or Local Environmental Plans.

Land to which this Development Control Plan applies

This Development Control Plan applies to all land within the Newcastle local government area to which Newcastle Local Environmental Plan 2012 applies and to land outside of the Port of Newcastle lease area to which State Environmental Planning Policy (Three Ports) 2013 applies, unless excluded in whole or part by an EPI, as per Section 74E (3) of the *Environmental Planning and Assessment Act 1979*.
Development to which this Development Control Plan applies

This Development Control Plan applies to all development requiring consent of Council under Newcastle Local Environmental Plan 2012 or State Environmental Planning Policy (Three Ports) 2013.

Under Section 79C of the *Environmental Planning and Assessment Act 1979*, Council is required to take into consideration the relevant provisions of any applicable DCP when determining an application for development.

Note: Section 79C of the *Environmental Planning and Assessment Act 1979* contains other matters that must be considered in determining a development application and accordingly compliance with the provisions of this DCP does not guarantee that development consent will be granted.

Development to which this Development Control Plan does NOT apply

This Development Control Plan does not apply to development where:

▪ identified, within Newcastle Local Environmental Plan 2012, as being ‘Permissible Without Consent’

▪ Exempt and Complying Development as defined within State Environmental Planning Policy (Exempt and Complying Development Codes) 2008, or within Schedules 2 and 3, respectively, of Newcastle Local Environmental Plan 2012, other than when specifically referenced in the exempt or complying development criteria under the Environmental Planning Instrument.

▪ carried out under Part 5 of the *Environmental Planning and Assessment Act 1979*

▪ assessed under the provisions of another Environmental Planning Instrument (such as a State Environmental Planning Policy) that excludes the provisions of the Newcastle Local Environmental Plan 2012 and/or this Development Control Plan.

Note: Section 74E (3) of the *Environmental Planning and Assessment Act 1979* enables an EPI to exclude or modify the application of this DCP in whole or part.

Definitions

A word or expression used in this development control plan has the same meaning as it has in Newcastle Local Environmental Plan 2012, unless it is otherwise defined in this development control plan.

Other words and expressions used are defined within Part 9.00 - Glossary of this plan.

Additional information

For more detailed information on the development assessment process and/or the minimum requirements for lodging a development application with Council, please refer to the Council’s Development Application Guide, which is available on Council’s website or at the City of Newcastle’s Administration Centre, 282 King Street, Newcastle.
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3.13 Industrial Development

Amendment history

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Savings provisions

Any development application lodged but not determined prior to this section coming into effect will be determined taking into consideration the provisions of this section.

Land to which this section applies

This section applies to all land zoned:
- B5 Business Development
- IN2 Light Industrial
- IN3 Heavy Industrial
- IN1 General Industrial
- SP1 Special Activities.

Development (type/s) to which this section applies

This section applies to development within the B5 Business Development, IN2 Light Industrial, IN3 Heavy Industrial, IN1 General Industrial zones and SP1 Special Activities.

Applicable environmental planning instruments and legislation

The provisions of the following listed environmental planning instruments also apply to development applications to which this section applies:
- Newcastle Local Environmental Plan 2012
- State Environmental Planning Policy (Three Ports) 2013

In the event of any inconsistency between this section and the above listed environmental planning instruments, the environmental planning instrument will prevail to the extent of the inconsistency.

Note 1: Additional environmental planning instruments may also apply in addition to those listed above.
Note 2: Section 74E (3) of the Environmental Planning and Assessment Act 1979 enables an environmental planning instrument to exclude or modify the application of this DCP in whole or part.
Related sections

The following sections of this DCP will also apply to development to which this section applies:
- 4.04 Safety and Security
- 7.02 Landscaping, Open Space, and Visual Amenity
- 7.03 Traffic, Parking and Access
- 7.05 Energy Efficiency
- 7.06 Stormwater
- 7.07 Water Efficiency
- 7.08 Waste Management
- 7.09 Outdoor Advertising and Signage.

The following sections of this DCP may also apply to development to which this section applies:
- 3.01 Subdivision – if the proposal involves subdivision
- 4.01 Flood Management – all land which is identified as flood prone land under the Newcastle Flood Policy or within a PMF or area likely to flood
- 4.02 Bush Fire Protection – within mapped bush fire area/zone
- 4.03 Mine Subsidence – within mine subsidence area
- 5.01 Soil Management – works resulting in any disturbance of soil and/or cut and fill
- 5.02 Land Contamination – land on register/where risk from previous use
- 5.03 Tree Management – trees within 5m of a development footprint or those trees likely to be affected by a development
- 5.04 Aboriginal Heritage – known/likely Aboriginal heritage item/site and/or potential soil disturbance
- 5.05 Heritage Items – known heritage item or in proximity to a heritage item
- 5.06 Archaeological Management – known/likely archaeological site or potential soil disturbance
- 5.07 Heritage Conservation Areas - known conservation area
- 7.04 Movement Networks – where new roads, pedestrian or cycle paths are required
- 7.10 Street Awnings and Balconies – awnings or balconies over public land.

Associated technical manual/s
- Nil

Additional information
- NSW Industrial Noise Policy, 2000, Environment Protection Authority (now known as Office of Environment and Heritage)

Definitions

A word or expression used in this development control plan has the same meaning as it has in Newcastle Local Environmental Plan 2012, unless it is otherwise defined in this development control plan.

Other words and expressions referred to within this section are defined within Part 9.00 - Glossary of this plan.

Aims of this section

1. To outline Council’s requirements for development within industrial, business development zones
2. To promote the efficient and economic use of the city’s industrial resources by ensuring that development proposed is appropriate to industrial areas.

3. To outline Council’s requirements for development on sites that are zoned SP1 under State Environmental Planning Policy (Three Ports) 2013 but are located outside of the Port of Newcastle Lease Area.

3.13.01 Site coverage

Objectives

1. Ensure that sites are developed to a level that maintains their efficient operation.

Controls

1. Site coverage of development is determined having regard to the following:
   (a) landscaping requirements
   (b) car parking and manoeuvring
   (c) loading areas
   (d) setbacks.

3.13.02 Character and amenity

Objectives

1. Promote development that is both functional and attractive in the context of its local environment through appropriate design.

2. Ensure new development is sympathetic with the streetscape character and amenity of any adjoining residential precinct.

3. Ameliorate any potential adverse amenity, noise privacy or overshadowing impact upon any adjoining residential zoned land from any proposed new building or proposed alterations and additions to an existing building.

4. Minimise the potential impact of development, visual or otherwise through careful site planning and ensure that adequate environmental safeguards are implemented.

5. Ensure that development proposed in close proximity to residential areas does not have materially detrimental effects on such areas.

Controls

1. Buildings meet a high standard of building design to achieve a suitable level of visual and environmental quality. Attractive building design can, in most cases, be achieved simply and at comparatively low cost, and applicants are encouraged to consider variations in fascia treatments, roof lines and selection of building materials to achieve an attractive design.
(a) Elevations of buildings which are visible from a public road, reserve, railway or adjacent residential areas are constructed using brick, masonry, pre-coloured metal cladding, appropriately finished ‘tilt-slab’ concrete or a combination of a number of these materials. Large unrelieved expanses of wall or building mass are avoided, and such should be broken up by the use of suitable building articulation, fenestration or alternative architectural enhancements.

(b) Showroom display areas, ancillary offices, staff amenities and other low-scale building elements are, wherever practicable, located at the front of the premises and constructed in brick or masonry materials to enhance the appearance of the development. (Refer Figure 1).

Figure 1 - Street address and front setback

(c) Roofing materials consist of low-reflective materials particularly when visible from a public place or adjoining residential areas.

2. In assessing a development proposal that adjoins or is located in close proximity to residentially zoned land, or land currently used for residential purposes, Council will have particular regard to:

(a) the nature of the proposed development
(b) the bulk and scale of development and possible overshadowing effects
(c) the need for side and rear boundary setbacks

Note: Development adjoining residential zoned land should generally comply with the applicable residential building envelope at the zone boundary interface.

(d) the provision of landscaping and its effectiveness in screening the proposed development
(e) the level of traffic generated
(f) the hours of operation proposed
(g) the impact of noise and other emissions.

3. Sources of noise such as garbage collection deliveries, plants and machinery, parking areas and air conditioning plants sited away from adjoining residential properties, wherever practicable, and screened by walls or other acoustic treatments. (Refer Figure 2).

*Figure 2 - Buffer provided from noise generating activities to residential areas*

Note: In determining a development application in industrial zones, Council is required to consider the effect the proposal will have on the existing and likely future amenity of the neighbourhood. The level of amenity for dwellings located on industrial land may be given less consideration than dwellings located on residential zoned land.

### 3.13.03 Open storage and work areas

**Objectives**

1. Ensure open storage and work area are suitably screened from public view.

**Controls**

1. Where any work or storage of materials is proposed to be undertaken outside the confines of a building, full details of those parts of the site to be so used, and of the materials to be stored, are provided with the application.

2. Approved open work and storage areas are located at the rear of industrial developments and screened from view by the use of landscaping and screen fencing. Such fencing is constructed of masonry materials or pre-coloured metal cladding, having a minimum height of 2m.
3.13.04 Building setbacks

Objectives

1. To ensure that adequate area is available at the street front of development to accommodate satisfactory landscaping, access, parking and manoeuvring of vehicles.

2. To reduce the visual impact of development on the streetscape and to provide adequate area for landscaping.

Controls

1. Development is setback 5m from the front property boundary, however, this setback may be reduced by up to 50% for half the width of the site (refer Figure 1), provided that:
   (a) the remaining portion of the development is setback a distance equivalent to the concession taken
   (b) the building design contributes to the enhancement of the streetscape
   (c) the setback area is landscaped
   (d) the front setback does not have any car parking spaces.

   Note: Within established areas consideration will also be given to existing setbacks, particularly within the B5 Business Development Zone.

2. Variations to a setback for development that has more than one road frontage will be considered on merit and take into account the following factors:
   (a) the location
   (b) surrounding development and land uses
   (c) building form.

   Note: Setbacks for the secondary frontage should generally be between 2m to 5m.

3. Buildings and external work and storage areas are setback a minimum of 6m from side and rear boundaries on sites of 10,000m² or more.
3.13.05  Loading, unloading and servicing areas

Objectives

1. Provide for the design of loading and servicing areas in a functional and aesthetically pleasing manner.

Controls

1. All loading and servicing areas are located to the side or rear of buildings and effectively screened from any street frontage, adjoining buildings and residential areas.

2. Each individual allotment provides sufficient on-site loading facilities to accommodate its activities within the allotment. All loading movements, including turnaround areas, are accommodated within allotments. Sharing of loading facilities and manoeuvring areas between sites will be considered on merit.

3.13.06  Parking and vehicle access

Objectives

1. Ensure adequate provision is made for on-site car parking and for employees and visitor's vehicles.

2. Create attractive landscaped car parking throughout the development.

Controls

1. Car parking provided on site in accordance with the requirements of Section 7.03 Traffic, Parking and Access of this DCP.

2. All car parking required by Council is provided 100% on site.

3. Off-street parking is provided behind or at the side of the building area from street frontage.

4. Loading docks are positioned so they do not interfere with visitor and employee parking spaces and to ensure delivery vehicles do not stand on any public road, footway or laneway.

5. Where possible separate heavy and light traffic movements.
3.13.07 Land in Zone IN1 General Industrial ‘Steel River’

The following controls apply to all development within ‘Steel River’ as identified on Map 1. Any inconsistency between a control under this part and elsewhere within the development control plan this part will take precedence to the extent of the inconsistency.

Map 1: Steel River

Note: 80 Tourle Street (Lot 1 DP874109) (former EMD Plant); 48 Tourle Street (Lot 2 DP523584); and 91 Industrial Drive (Lot 11 DP842850) as shown on the map below are not part of the Steel River precinct (according to the Strategic Impact Assessment Study (1998)) and are therefore exempt from the area specific controls contained in 3.13.07 Land in Zone IN1 General Industrial ‘Steel River’. The regular Industrial Development DCP controls still apply. Please consult with Council if you are unsure about the controls that apply to these sites.

Definitions

- **environmental envelope** - all the requirements set out in Part D of the ‘Strategic Impact Assessment Study’, and includes (without limitation) the requirements relating to the following:
  (a) air quality, noise emissions and water quality
  (b) industrial ecology and ecologically sustainable development
  (c) the social and economic welfare of residents and workers in Newcastle
  (d) urban design and landscaping
  (e) the cultural, historic and landscape significance of the land.
• **qualified person** - a person:
  (a) who holds qualifications in a relevant field (such as town planning, engineering, architecture or environmental sciences) that are recognised by a professional association and the Council, and
  (b) who has been registered with the Council as a qualified person for the relevant purpose of preparing the study requested under Section 3.13.07 C.

• **Strategic Impact Assessment Study** - the study titled ‘Strategic Impact Assessment Study’ concerning land at Tourle Street and Industrial Drive, Mayfield - the Steel River Project, approved by the Council and dated February 1998, a copy of which is available at the office of the Council.

**Aims of this section**

1. To identify special controls applying to ‘Steel River’.

**A Public notification**

1. On receipt of a development application with respect to land to which this clause applies, the consent authority shall:

   (a) give public notice of the receipt of the application, within 7 days of its receipt, in a newspaper circulating in the City of Newcastle, and

   (b) invite the public to inspect the proposal, at a place and at a time specified in the notice.

**B Development controls**

1. The consent authority will not grant consent to the carrying out of development on land to which this part applies unless:

   (a) the development is allowed with consent and complies with the environmental envelope, and

   (b) the environmental effects of any aspect of the development relating to air quality, noise emissions or water quality that have not been addressed in the ‘Strategic Impact Assessment Study’, meet any relevant standards determined by the Office of Environment and Heritage.

**C Granting consent**

1. The consent authority should, within 28 days of receipt of a development application relating to land to which this part applies, grant consent to the carrying out of the development, if it is satisfied that:

   (a) a study prepared by a qualified person demonstrates that the requirements of Section 3.13.07 B above have been met, and

   (b) the consent authority has met its obligations under Part 4 of the Act with respect to the assessment of the development application and, in particular, the matters required to be taken into consideration under section 79C (1) of the Act.
3.13.08  Land outside of the Port of Newcastle Lease Area

The following additional controls apply to development of land zoned SP1 under the Three Ports SEPP and located outside of the Port of Newcastle Lease Area shown in yellow in Map 2. Any inconsistency between a control under this part and elsewhere within the development control plan, this part will take precedence to the extent of the inconsistency.

This part of the DCP does not apply to the 'Deferred Matter' shown in purple in Map 2. The 'Deferred Matter' is zoned SP1 under State Environmental Planning Policy (State Significant Precincts) 2005.

Map 2: Land identified under State Environmental Planning Policy (Three Ports) 2013

Definitions

- Three Ports SEPP means State Environmental Planning Policy (Three Ports) 2013
- Port of Newcastle Lease Area means land identified as “Port of Newcastle Lease Area” on the Lease Area Map contained in the Three Ports SEPP. This area is coloured Pink in Map 2 above.
Notes:

1. The Port of Newcastle is within the protected airspace zone of the Williamtown RAAF base. Buildings and structures (including structures such as an aerial or antenna and temporary structures such as cranes) with a height of 30m or greater may require separate approval from the Commonwealth Department of Defence. If your proposal includes a structure or construction will include the use of a crane with a height 30m or greater, it is recommended that you first discuss your proposal with the Commonwealth Department of Defence.

2. The safe and efficient navigation of vessels in the Newcastle Harbour shipping channels, approaches and berthing boxes relies on a network of land based navigational aids located on land in the Newcastle CBD, Newcastle Foreshore (near Nobby's Beach), Throsby Basin, Kooragang Island and Stockton Point. Buildings and structures, including cranes used in construction, that are proposed to be developed or located within the sight lines or view corridors may have the potential to impact upon the use or functionality of the navigation aids, by way of obstruction, reflectivity or illumination. In this case, it is recommended that you first discuss your proposal with the Harbour Master at the Port Authority of Newcastle South Wales (PANSW) and the port operator, Port of Newcastle (PON).

Aims of this section

1. To identify additional controls applying to development of land zoned SP1 under the Three Ports SEPP and located outside of the Port of Newcastle Lease Area.

2. To ensure development is consistent with the objectives of the Three Ports SEPP and supports Port activities.

A  Vehicular access

Objectives

1. To ensure safe and effective access is provided for land zoned SP1 under the Three Ports SEPP and located outside of the Port of Newcastle Lease Area.

2. To ensure that legal access is provided to all land zoned SP1 under the Three Ports SEPP and located outside of the Port of Newcastle Lease Area.

Controls

1. New development should be designed to use the existing access points to Industrial Drive, Cormorant Road and Teal Street.

2. Where access to a site is via roads managed by the operator of the Port of Newcastle (shown in Map 2), evidence that the operator has given consent to use the road is to be submitted with the development application.

3. Where new work, such as a new or reconstructed driveway crossing, is proposed within a road reserve of a road managed by the operator of the Port of Newcastle (shown in Map 2), the consent of the operator to lodge the development application is required.
B Stormwater Disposal

Objectives

1. To ensure that safe and legal methods of stormwater disposal are provided for land zoned SP1 under the Three Ports SEPP and located outside of the Port of Newcastle Lease Area.

Controls

1. Where stormwater is to be discharged via a stormwater system that is managed by the operator of the Port of Newcastle, the development application is to include evidence that the operator has given consent to the use of the stormwater system.
7.09 Outdoor Advertising and Signage

Amendment history

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Savings provisions

Any development application lodged but not determined prior to this section coming into effect will be determined taking into consideration the provisions of this section.

Land to which this section applies

This section applies to all land to which the Newcastle Local Environmental Plan 2012 applies and to land outside of the Port of Newcastle lease area to which State Environmental Planning Policy (Three Ports) 2013 applies.

Development (type/s) to which this section applies

This section applies to all outdoor advertisements.

Applicable environmental planning instruments

The provisions of the following listed environmental planning instrument/s also apply to development applications to which this section applies:

- Newcastle Local Environmental Plan 2012
- State Environmental Planning Policy 64 – Advertising and Signage.

In the event of any inconsistency between this section and the above listed environmental planning instruments, the environmental planning instrument will prevail to the extent of the inconsistency.

Note 1: Additional environmental planning instruments may also apply in addition to those listed above.

Note: Section 74E (3) of the Environmental Planning and Assessment Act 1979 enables an environmental planning instrument to exclude or modify the application of this DCP in whole or part.

Related sections

- Nil

Associated technical manual/s

- Signage and Outdoor Advertisement Technical Manual
Additional information

- Nil

Definitions

A word or expression used in this development control plan has the same meaning as it has in Newcastle Local Environmental Plan 2012, unless it is otherwise defined in this development control plan.

Other words and expressions referred to within this section are defined within Part 9.00 - Glossary, of this plan and include:

- **Advertisement** - has the same meaning as in the Act.

  Note: The term is defined as a sign, notice, device or representation in the nature of an advertisement visible from any public place or public reserve or from any navigable water.

- **Advertising area** - the entire surface area of a sign face, including any margin, frame or embellishment which forms an integral part of the sign. In the case of an advertising structure with more than one sign face, the maximum surface area of the combined faces. The area of skeleton letter signs shall be the total area within which the letters and associated graphics are displayed and not the area of the individual letters added together.

- **Advertising structure** - the same meaning as in the Act.

  Note: The term is defined as a structure used or to be used principally for the display of an advertisement. Advertising structures are a type of signage.

- **Signage** - any sign, notice, device, representation or advertisement that advertises or promotes any goods, services or events and any structure or vessel that is principally designed for, or that is used for, the display of signage, and includes any of the following:
  (a) an advertising structure
  (b) a building identification sign
  (c) a business identification sign
  but does not include a traffic sign or traffic control facilities.

- **Under awning sign** - a sign located below or otherwise supported from the underside of an awning.

Aims of this section

1. To encourage well designed and suitably located signage that allows for the identification of a business, land use, or activity to which the signage relates.

2. To provide guidelines for the design and installation of advertising signage and structures.

3. Recognise the legitimate need for business identification and promotion, and allow appropriate visual communication using signage.

4. To minimise the extent of visual clutter caused by the proliferation of signage and encourage the rationalisation of existing and proposed signage.

5. To allow signage to be erected or displayed only where they are compatible with the scale and character of their host premises and do not detract from the visual amenity of the locality or create a safety risk.
7.09.01 General limitations on outdoor signage

Objectives

1. Minimise safety risk created by signage.
2. Identify signage types that are undesirable due to their size, position or nature.

Controls

1. The following forms of advertising sign or promotional device are not favoured and shall generally not be approved in any zone.
   (a) Flashing or moving signs, which could otherwise affect traffic safety or neighbourhood amenity, including chasing or scintillating lighting.
   (b) Flyposting.
   (c) Any sign not permanently fixed to the premises, including moveable signs on footways or roads, other than a ‘temporary sign’.
   (d) Any sign made of canvas, calico or the like.
   (e) Any fascia sign or flush wall sign which extends beyond the profile of the fascia or wall to which it is attached other than a 300mm maximum horizontal projection
      (Note: Any such encroachment over adjoining land will require the consent of the landowners concerned).
   (f) Roof signs, sky signs above awning signs and freestanding advertising panels or hoardings.

7.09.02 Residential zones

Objectives

1. Ensure that signs in residential areas are small scale and appropriate to the surrounding area.

Controls

1. Only one sign is provided for home business/home occupation/home industry and health consulting rooms compliant with the following details:
   (a) the sign has a maximum advertising area of 0.25m²
   (b) the sign indicates the name and occupation of the business.
7.09.03 Commercial zones

Objectives

1. Ensure signage for commercial buildings is compatible with surrounding environment.

2. Minimise the extent of visual clutter caused by proliferation of signs and encourage the rationalisation of signage.

Controls

Controls applying to commercial zoned land

1. Total advertising area of all signage directed to the street frontage, other than under awning or awning facia signs, does not exceed 0.6m² per lineal metre of that street frontage.

2. No more than one under awning sign is permitted for each shop or, in the case of multiple occupancy, one under awning sign for each use provided that the distance between under awning signs is at least 3m.

3. No advertising structure shall be erected closer than 3m in a horizontal plane to any other advertising structure.

4. Where multiple occupancy of the building occurs, only one sign per occupant occurs (other than an under awning or fascia sign).

5. No flush wall sign, projecting wall sign or advertising panel projects horizontally or vertically beyond the wall on which it is mounted and no fin sign projects beyond the canopy upon which it is mounted.

6. Pole or pylon signs have a maximum advertising area of 3m² and a maximum height of 7m to the top of the sign, measured from the finished surface level of the adjacent public road at the kerbline.

7. Vertical projecting wall signs have a maximum advertising area of 3m².

8. An advertising panel shall have a maximum advertising area of 18m² or 25% of the wall area to which it is attached, whichever is the lesser.

9. Horizontal projecting wall signs are not favoured and only occur in exceptional circumstances, where sufficiently justified.

10. Window signs only occur on ground floor windows below awning and occupy less than 50% of the window area so as not to obstruct natural light or reduce active street frontages.

11. Advertising signs are not to interfere with road traffic signs and signals or affect the visibility of drivers or other road users.
Controls applying to the Newcastle City Centre

12. Signs are designed and located to:
   
   (a) relate to the use of the building
   
   (b) be visually interesting and exhibit a high level of design quality
   
   (c) be integrated and achieve a high degree of compatibility with the architectural design of the host building having regard to its composition, fenestration, materials, finishes, and colours, as well as to ensure that architectural features of the building are not obscured
   
   (d) have regard to the view of the sign and any supporting structure, cabling and conduit from all angles, including visibility from the street level and nearby higher buildings and against the skyline
   
   (e) have only a minimal vertical or horizontal projection from the building.

13. Illuminated signs on buildings achieve the following:
   
   (a) illuminated signs are not to detract from the architecture of the host building during daylight
   
   (b) illumination (including cabling) of signs is:
       
       (i) concealed, or
       
       (ii) integral with the sign, or
       
       (iii) provided by means of carefully designed and located remote or spot lighting.
   
   (c) the ability to adjust the light intensity of illuminated signs is to be installed where the consent authority considers necessary. Restricted hours may be imposed on the operation of illuminated signs where continuous illumination may impact adversely on the amenity of residential buildings, serviced apartments or other visitor accommodation, or have other adverse environmental impacts.
   
   (d) uplighting of signs is discouraged. Any external lighting of signs is to be downward pointing and focused directly on the sign and is to prevent or minimise the escape of light beyond the sign.

7.09.04 Industrial zones

Controls applying to Industrial zones and land zoned SP1 under State Environmental Planning Policy (Three Ports) 2013 and located outside of the Port of Newcastle Lease Area.

Objectives

1. Ensure that all signage is carefully designed and integrated into the building design.

2. Minimise the extent of visual clutter caused by proliferation of signs and encourage the rationalisation of signage.
7.09 Outdoor Advertising and Signage

**Controls**

1. Signs are restricted to those necessary in order to identify lawfully established industrial or commercial enterprises on the subject land and to advise of a range of associated goods or services as appropriate.

2. The total advertising area of all signage directed to the street frontage does not exceed 0.3m² of advertising per lineal metre of that street frontage.

3. Only one free-standing sign identifying the name of the occupants and/or products manufactured or produced on the site is permitted on any industrial land. Such signs are contained wholly within the site.

4. Signs for multiple occupancy buildings are of a uniform shape, size and general presentation, supplemented by a directory board located in a position satisfactory to Council.

5. A company identification sign on a directory board does not exceed 2.4m x 0.6m.

7.09.05 Environmental zones

**Objectives**

1. Ensure the rural character and scenic quality is protected from inappropriate signage.

**Controls**

1. Signs are only located on land within environmental zones for the purposes of directing the travelling public to tourist areas or tourist facilities.

7.09.06 Special purpose or recreation zones

**Objectives**

1. Minimise the extent of visual clutter.

**Controls**

1. Advertising signs in Special Purpose or Recreation zones are only permitted:

   (a) where the sign is ancillary to lawfully established development on the subject property

   (b) where the applicant is able to demonstrate a justifiable need for the erection or display of the proposed sign

   (c) in the case of general advertising, where the sign faces inwards towards a playing field or spectator enclosure and is not visible beyond the site.
7.09.07 Signs on heritage items or signs located within heritage conservation areas

Objectives

1. Require that signage erected or displayed on identified heritage buildings or within heritage conservation areas do not detract from the architectural character and heritage significance of such buildings or areas.

2. Encourage signage appropriate to a heritage item having regard to the significance and context of each item.

3. Prevent inappropriate signs on a heritage item.

4. Restrict the illumination of signs on a heritage item unless appropriate to the heritage significant of the item.

Controls

General controls applying to heritage conservation areas

1. Signage is:
   
   (a) sympathetic to and compatible with the heritage significance of the area
   
   (b) constructed from high quality materials, particularly metals such as bronze, brass and stainless steel
   
   (c) compatible with the architecture of the supporting building, in particularly its materials.

2. The following classes of advertising structure are generally not compatible with buildings of heritage value or within conservation areas:
   
   (a) above-awning sign
   
   (b) advertising panel
   
   (c) fin sign
   
   (d) pole/pylon sign
   
   (e) projecting wall sign (except where no awning exists).

Controls applying to the Newcastle City Centre -East

3. Signs are suitably located, sized and designed in relation to the building to which it is attached. They:

   (a) are located within bays created by facade articulation, and are compatible with the geometry and proportion of these bays

   (b) do not obscure important architectural features

   (c) are not located above cornice line of parapet
(d) are not on the rooftop

(e) are not boxed or illuminated above the awning.

4. Signs with products that do not directly relate to the retail and commercial services provided on the premises signage are not located along buildings, awnings and side boundary walls.

5. The maximum number of signs on the building facade, excluding awning signs, is one per lessee/owner.

6. The maximum number of under awning signs is one per lessee/owner.

7. A maximum of one sign on a sidewall which may be floodlit but not illuminated.

8. Where a wall is face brick a face-plate of maximum thickness 5mm is used for signage.

9. Lighting of a building facade has regard to and highlights decorative features of the building: their silhouette, projections, recesses and openings. Illumination is not to minimise visual appreciation of neighbouring heritage and contributory buildings.
9.00 Glossary

Amendment history

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Aboriginal cultural heritage - means Aboriginal objects and declared Aboriginal places as defined under the National Parks and Wildlife Act, 1974.

Note: The National Parks and Wildlife Act, 1974 defines Aboriginal objects as: any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

Aboriginal place means any place declared to be an Aboriginal place under Section 84.

Above awning sign - a sign on top of an awning.

Absorption trench - a trench excavated into the ground for the purpose of storing an initial volume of rainfall before that water seeps into the soil in which the trench is excavated.

Act of prostitution - has the meaning ascribed to it under Section 20 of the Summary Offences Act, 1988.

The Act - the Environmental Planning and Assessment Act 1979.

Active solar energy systems - systems which combine the sun’s energy with local climatic conditions to achieve thermal comfort inside buildings with the use of mechanical devices. An example is sub-floor heating which uses a pump to circulate hot water from a tank through the floor and back to solar collectors.

Activity centres - areas where commercial, retail and entertainment facilities are focused.

Activity nodes - see Activity centres.

Accessible path of travel - a continuous accessible path of travel is an uninterrupted part of travel to or within a building, providing access to all required facilities. It does not incorporate any step, stairway, turnstile, revolving door, escalator or other impediment which would prevent it from being safely negotiated by people with disabilities.

Adaptable Housing - refers to the means of designing a house/unit that enables easy and relatively cheap adaptation to make it comply fully with access standards (refer AS 4299 Adaptable Housing - Class C). This housing is designed in such a way that it can be easily modified in the future to meet changing needs of occupants.
**Adjoining occupiers** - persons who appear to the Council to occupy land abutting a development proposal.

**Adjoining owners** - persons who appear to the Council to own land abutting a development proposal.

**Advertised development** - has the same meaning as in the Act.

Note: The term is defined as development, other than designated development, that is identified as advertised development by the regulations, an environmental planning instrument or a development control plan. Advertised development includes any development for the purposes of a scheduled activity at any premises under the Protection of the Environment Operations Act 1997 that is not designated development.

**Advertisement** - has the same meaning as in the Act.

Note: The term is defined as a sign, notice, device or representation in the nature of an advertisement visible from any public place or public reserve or from any navigable water.

**Advertising area** - the entire surface area of a sign face, including any margin, frame or embellishment which forms an integral part of the sign. In the case of an advertising structure with more than one sign face, the maximum surface area of the combined faces. The area of skeleton letter signs shall be the total area within which the letters and associated graphics are displayed and not the area of the individual letters added together.

**Advertising panel** - any other advertising structure which is unilluminated, including a hoarding or bulletin board.

**Advertising sign** - a sign, notice, device or representation in the nature of an advertisement, whether illuminated or not, which is visible from any public place or public reserve, or from any navigable waterway, and is not a road traffic signal or sign.

**Advertising structure** - has the same meaning as in the Act.

Note: The term is defined as a structure used or to be used principally for the display of an advertisement.

**Affordable housing** - has the same meaning as in the Act.

Note: The term is defined as housing for very low income households, low income households or moderate income households, being such households as are prescribed by the regulations or as are provided for in an environmental planning instrument.

**Allotment** - the legal parcel of land which has been created via subdivision and registered with the Land Property Information service, normally having a Lot Number and Deposited Plan (ie Torrens Title subdivision).

**Alter** - in relation to a heritage item, or to a building or work within a heritage conservation area, means:

(a) make structural changes to the outside of the heritage item, building or work; or

(b) make non-structural changes (other than maintenance) to the detail, fabric, finish or appearance of the outside of the heritage item, building or work.
Amenity - is the term used to describe the features, facilities or services that make for a comfortable and pleasant life. Amenity is not only enjoyed by residents in their homes and gardens but also in the street and public places.

Annual exceedance probability (AEP) - is the probability that a flood of a given or larger magnitude will occur within a period of one year. Its reciprocal is equivalent to average recurrence interval.

Archaeological Assessment - a report prepared by a qualified archaeologist that conforms to the current reporting requirements of the NSW Office of Environment & Heritage.

Archaeological site - (or site) a site identified in the Newcastle Archaeological Management Plan 1997; or the place or site of a relic or relics as defined in the NSW Heritage Act 1977 as amended.

Articulation zone - building articulation is the treatment of a facade of a building which forms part of the public domain (ie the relation to streets, view corridors, open space, the harbour foreshore) and how it is emphasised architecturally. The facade of a building can be articulated using distinctive building treatments including:

- balconies
- verandahs and porches
- recessed terraces
- bay windows and French (or juliet) balconies
- external sun shading
- building facades can also be articulated using
- variations in setbacks
- fenestration
- materials and detailing
- entrances at ground level
- punctuated walls with recognisable patterns and features.

Australian Height Datum (AHD) - a standard datum for expressing vertical information.

Average recurrence interval (ARI) - the average period between the recurrence of a storm event of at least a given rainfall intensity. The ARI represents a statistical probability. For example, a 10 year ARI indicates an average of 10 events over 100 years. The ARI is not the period between actual events.

Awning - is a predominantly horizontal structure that projects over a footpath from the host building to provide weather protection for pedestrians.

Awning sign - attached to an awning (other than a fascia or return wall).

Balcony - is an open area, not being an enclosed room or area, attached to or integrated with and used for the exclusive enjoyment of the occupant or occupants of a dwelling.

BASIX - Building Sustainability Index (BASIX) is an online rating system used to ensure residential buildings are designed to use less potable water and be responsible for fewer greenhouse gas emissions by setting energy and water reduction targets for house and units.

Basement garage - is a garage normally used for the parking of vehicles with the floor constructed below the street level.

Battle-axe lot - means a lot that has access to a road by an access laneway.
**Building** - has the same meaning as in the *Act*.

Note: The term is defined to include part of a building, and also includes any structure or part of a structure (including any temporary structure or part of a temporary structure), but does not include a manufactured home, moveable dwelling or associated structure or part of a manufactured home, moveable dwelling or associated structure.

**Building Code of Australia** - has the same meaning as in the *Act*.

Note: The term is defined as the document, published by or on behalf of the Australian Building Codes Board, that is prescribed for purposes of this definition by the regulations, together with:

(a) such amendments made by the Board
(b) such variations approved by the Board in relation to New South Wales, as are prescribed by the regulations.

**Building envelope** - the three dimensional space that limits the extent of a building on an allotment. The building envelope is defined by building height and front, side and rear boundary setbacks. Refer to definitions for building height and setback for inclusions and exclusions.

**Building envelope (for heritage purposes)** - the volume of the building on the site of the heritage item.

**Building elements (for heritage purposes)** - doors, windows, gutters, downpipes, chimneys, walls, shopfronts, roofs, and stairs.

**Building height (or height of building)** - has the same meaning as in Newcastle Local Environmental Plan 2012.

Note: The term is defined as the vertical distance between ground level (existing) and the highest point of the building, including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.

**Building line or setback** - has the same meaning as in Newcastle Local Environmental Plan 2012.

Note: The term is defined as the horizontal distance between the property boundary or other stated boundary (measured at 90 degrees from the boundary) and:

(a) a building wall
(b) the outside face of any balcony, deck or the like
(c) the supporting posts of a carport or verandah roof

whichever distance is the shortest.

**Bulk** - the total effect of the arrangement, volume, size and shape of the building.

**Bush fire prone land** - has the same meaning as in the *Act*.

Note: The term is defined, in relation to an area, as land recorded for the time being as bush fire prone land on a map for the area certified as referred to in section 146 (2) of the Act.

**Bush fire hazard reduction work** - has the same meaning as in the *Rural Fires Act 1997*.

Note: Bush fire hazard reduction work means:

(a) the establishment or maintenance of fire breaks on land, and
(b) the controlled application of appropriate fire regimes or other means for the reduction or modification of available fuels within a predetermined area to mitigate against the spread of a bush fire,

but does not include construction of a track, trail or road.
Car pooling - car pooling (also known as ride-sharing or lift-sharing) is a system by which participants coordinate their trips (for example, trips to work) so that they can travel in a single car, thereby reducing the volume of traffic on the roads and associated impacts.

Car sharing - car sharing allows a member of the car sharing scheme (such as an individual or a business) to access a fleet of shared vehicles, as needed, paying a usage fee each time. Characteristics of a typical car sharing scheme include a provider with a centralised system for booking and billing, clients (individuals/organisations), a fleet of vehicles, and parking spaces at key locations within a defined catchment area.

Carriageway - that portion of a road or bridge devoted to the use of vehicles, inclusive of shoulders and auxiliary lanes.

Catchment - is the entire area of land drained by a river and its tributaries.

Category 1 remediation work - remediation work that needs development consent under State Environmental Planning Policy No. 55 - Remediation of Land.

Category 2 remediation work - remediation work that does not need development consent under State Environmental Planning Policy No. 55 - Remediation of Land.

Category 1 vegetation - appears as orange on the map and represents forests, woodlands, heathlands, pine plantations and wetlands. Land within 100m of this category (indicated by the red buffer on the map) is also captured by the Bush Fire Prone Land Map due to the likelihood of bush fire attack.

Category 2 vegetation - appears as yellow on the map and represents grasslands, scrublands, rainforests, open woodlands and mallee. The land within 30m of Category 2 vegetation (ie as indicated by the red buffer on the map) is also captured by the Bush Fire Prone Land Map due to the likelihood of bush fire attack.

Certifying authority - has the same meaning as in the Act.

Certifying authority - has the same meaning as in the Act.

Note: The term is defined as a person who:
(a) is authorised by or under section 85A to issue complying development certificates, or
(b) is authorised by or under section 109D to issue Part 4A certificates.

Character - the combination of the individual characteristics or qualities of a neighbourhood, precinct or street.

Circumference breast height - the girth of the supporting stem of a tree at a height of 1.4m above ground level (existing) measured at the trunk centre, and so as to contain the outermost projection of any flanges or buttresses.

City Centre - area defined on the Newcastle City Centre map of the Newcastle Local Environmental Plan 2012

Classified advertisement - a notice appearing in the public notices section of a newspaper.

Community land - has the same meaning as in the Local Government Act 1993.

Community title subdivision - form of title created under the Community Land Development Act 1989 and the Community Land Management Act 1989. Community title provides individual ownership of lots (with buildings and structures erected on the lots as in conventional subdivision) and a share in the association property. Association property is a lot in the scheme on which community facilities may be erected. Association property can include land for roads and
driveways, swimming pools and other common facilities, common open space areas and common infrastructure facilities, such as water treatment plants and the like.

**Compliance certificate** - has the same meaning as in the Act.

Note: Refer to section 109C (1) (a) of the Act.

**Complying development** - has the same meaning as in the Act.

Note: Development for which provision is made as referred to in section 76A (5) of the Act.

**Complying development certificate** - means a complying development certificate referred to in section 85 of the Act.

**Conventional or Torrens title subdivision** - the traditional or 'single lot' form of subdivision, common in many residential estates. The Torrens title system is based on a plan of survey, or a plan compiled from survey, which defines the boundaries of a parcel of land at the date upon which it was registered.

**Consent authority** - has the same meaning as in the Act.

Note: The term is defined in relation to a development application or an application for a complying development certificate, means:

(a) the council having the function to determine the application, or
(b) if a provision of this Act, the regulations or an environmental planning instrument specifies a Minister, the Planning Assessment Commission, a joint regional planning panel or public authority (other than a council) as having the function to determine the application—that Minister, Commission, panel or authority, as the case may be.

**Conservation** (in relation to heritage) - all of the processes of conserving a place to retain heritage significance.


**Construction certificate** - means a certificate referred to in section 109C (1) (b) of the Act.

**Contaminated land** - land in, on or under which any substance is present at a concentration above that naturally present in, on or under the land and that poses, or is likely to pose, an immediate or long-term risk to human health or the environment.


**Contamination** - concentration of substances above that which should be naturally present, and which poses, or is likely to pose, an immediate or long-term risk to human health or the environment.

**Contaminated wastes** - includes any substance or item that has become or may have become contaminated by body fluids (refers to Sex Services Establishments section).

**Contributions plans** - plans specify the circumstances in which the Council may impose developer contributions (generally known as 'Section 94/94A contributions'). These plans may apply to the whole of the Council area, to a particular district or to a specific site.
**Contributory building** - a building that is associated with a significant historical period, substantially intact; and a building associated with a significant historical period, altered yet readily identifiable.

**Contributory item** - a feature, including a building, work, relic, tree or place within a conservation area which in the opinion of the Council has cultural significance and whose loss would be detrimental to the overall heritage significance of the conservation area.

**Council** - means The City of Newcastle

**Covenant** - a restriction on the use of land recorded on the property title and binding upon successive landowners. Covenants may be 'negative' (imposing restrictions) or 'positive' (imposing positive obligations). Covenants are imposed under the *Conveyancing Act 1919*.

**Curtilage** - the area of land surrounding a heritage item that is essential in retaining the heritage significance of the item.

**Deep soil zone** - an area of natural ground with relatively natural soil profiles within a development. Deep soil zones should be designed in such a way that is free of conflicts with infrastructure, services and drainage pipes.

**Designated development** - has the meaning given by Section 77A of the *Act*.

**Detailed investigation** - an investigation to define the extent and degree of contamination, to assess potential risk posed by contaminants to human health and the environment, and to obtain sufficient information for the development of a remedial action plan if required. Reporting requirements for a detailed investigation are as outlined in the publication Guidelines for Consultants Reporting on Contaminated Sites (*EPA, 1997*).

**Development** - has the same meaning as in the *Act*.

**Development application** - has the same meaning as in the *Act*.

**Development control plan** (or **DCP**) - has the same meaning as in the *Act*.

**Development footprint** – the area of ground to be covered by structures, including pathways and driveways.

**Development site** - includes all area within which the development will occur and can extend across several lots or development blocks.
Discharge control - a device that stores water and limits the rate of discharge from the development site.

Dispersion trench - a 600mm x 600mm trench, 1m long for every 25m² of catchment draining to it (regardless of whether or not a discharge control is used) excavated into the ground for the purpose of dispersing overflows and discharges from stormwater systems. Dispersion trenches are only for single dwellings that drain to the rear.

Drainage - means any activity that intentionally alters the hydrological regime of any locality by facilitating the removal of surface or ground water. It may include the construction, deepening, extending, opening, installation or laying of any canal, drain or pipe, either on the land or in such a manner as to encourage drainage of adjoining land.

Easement - a legal right held by an owner of land or public authority in respect of another land parcel. Easements are commonly created to enable access across other properties, such as for drainage, pipelines, footways, etc.

Ecologically sustainable development - has the same meaning it has in Section 6 (2) of the Protection of the Environment Administration Act 1991.

Edges - define the boundaries of precincts and areas of special character.

Environmental amenity - the harmony of urban life provided through compatible land uses, sensitive design and the control of activities and processes that impinge on the wellbeing of reasonable people.

Environmental impact statement - a document describing the likely impacts of proposed development on the environment, and prepared in accordance with clauses 71-76 of the Environmental Planning and Assessment Regulation 2000. Environmental impact statements are required to be prepared in the following instances:
- development applications relating to 'designated development';
- activities subject to Part 5 of the Environmental Planning and Assessment Act 1979 that are likely to significantly affect the environment.

Environmental planning instrument - has the same meaning as in the Act.

Note: The definition is defined as an environmental planning instrument (including a SEPP or LEP but not including a DCP) made, or taken to have been made, under Part 3 and in force.

Erosion and Sediment Control Plan - a plan lodged with a development application that illustrates how erosion and sediment control will be managed during the construction phase of the development.

Excavation Permit - a permit provided under section 140 or section 60 of the NSW Heritage Act 1977.

Exempt development - is development for which provision is made as referred to in Section 76 (2) of the Act.

Exemption Notification Form S57(2) - a permit provided under Section 57 of the NSW Heritage Act 1977.

Exhibition period - the period during which a person may inspect exhibited documents relating to a notifiable matter.

Fabric - the physical material of the place (including the building, site or area).
Facade - the exterior walls of a building.

Facadism - the practice of demolition of a building, retaining only the facade.

Fascia Sign - attached to the fascia or return end of an awning.

Fenestration - arrangement of windows and other patterns on a building.

Fill - means the depositing of soil, rock or other similar extractive material obtained from the same or another site, but does not include:

(a) the depositing of topsoil or feature rock imported to the site that is intended for use in garden landscaping, turf or garden bed establishment or top dressing of lawns and that does not significantly alter the shape, natural form or drainage of the land, or

(b) the use of land as a waste disposal facility.

Fin Sign - erected on or above the canopy of a building.

Fine Grain - a variety of different land uses in proximity to one another or a series of narrow building elements as opposed to a large consolidated land use or a broad, unbroken building form.

Flashing sign - illuminated (as to any part of the advertising area) at frequent intervals by an internal source of artificial light and whether or not included in any other class of advertising structure.

Floodlit sign Illuminated - (as to any part of the advertising area) by an external source of artificial light and whether or not included in any other class of advertising structure.

Flood fringe areas - the remaining area of the Hunter River Floodplain not included in flood storage areas and floodways. Flood fringe areas can usually be developed without reference to how that development will affect the flood behaviour either upstream or downstream.

Flood information certificate - is a certificate issued by Council that provides information about the likelihood, extent or other characteristics of flooding known to affect a specified parcel of land.

Flooding - is relatively high stream flow which overtops the natural or artificial banks in any part of a stream, river estuary, lake or dam, and/or local overland flooding associated with major drainage, and/or coastal inundation resulting from super-elevated sea levels and/or waves, excluding tsunami. Accordingly, flooding may occur due to a variety of reasons, either separately or in combination including:

- river flooding - caused by a river or stream overtopping its banks onto the surrounding floodplain
- urban flooding - caused by urban stormwater flows during an intense rainfall event, such as surface flows, surcharge from piped drainage systems or overflow from man-made stormwater channels.
- coastal inundation - caused by sea water inundation due to king tides, storm surge, barometric effects, shoreline recession, subsidence, the enhanced greenhouse effect or other causes.

Flood liable land - is synonymous with flood prone land (ie) land susceptible to flooding by the PMF event on the basis of flood information held by Council. Note that the term flood liable land covers the whole floodplain, not just that part below the FPL (see flood planning area).
**Floodplain** - an area of land along the course of a river that is subject to periodic inundation due to the river overtopping its bank. It is commonly delineated by the area that would be flooded by an event with a given average recurrence interval.

**Flood planning area** - the area of land below the FPL. Note that development controls that mainly relate to risk to property apply to the flood planning area, but other development controls mainly relating to risk to life and floodways and flood storages may apply to the remainder of flood liable (prone) land.

**Flood planning level (FPL)** - is the level of the planning flood plus an additional freeboard as advocated in the NSW Floodplain Development Manual. For purposes of this element, the planning flood is the 1% Annual Exceedance Flood, and the freeboard is generally 500mm.

**Flood prone land** - is land that, on the basis of flood information held by Council, is estimated to be inundated by the probable maximum flood.

**Flood refuge** - is an area free of flooding. It can be either higher ground or it could be in the form of an area of the building, either constructed specifically for the purpose or as an intrinsic part of the building.

**Flood storage area** - is an area where flood water accumulates and the displacement of that floodwater will cause a significant redistribution of floodwaters, or a significant increase in flood levels, or a significant increase in flood frequency. Flood storage areas are often aligned with floodplains and usually characterised by deep and slow moving floodwater.

**Floodway** - those areas of the floodplain where a significant discharge of water flows during floods; often aligned with obvious naturally defined channels. Floodways are areas which, even if only partially blocked, would cause a significant redistribution of flood flow or increase in flood levels, which may in turn adversely affect other areas.

**Floorplate** - total enclosed area of a floor measured from the outside of the external walls, inclusive of all internal walls, service areas, stores, ducts, circulation and the like.

**Footpath** - the paved area in a footway.

**Footway** - that part of the road reserve between the carriageway and the road reserve boundary, reserved for the movement of pedestrians and legal cyclists. It may also accommodate utilities, footpaths, stormwater flows, street lighting poles and plantings.

**Form** - the overall shape and parts of the building.

**Freeboard** - is a margin applied to the estimation of flood levels to compensate for factors such as wave action, localised hydraulic behaviour, climatic change and modelling confidence.

**Frontage** - the street alignment at the front of a lot and, in the case of a lot that abuts two or more streets, the boundary of which, when chosen, would enable the lot to comply with this document.

**Formed void absorption trench** - an absorption trench formed by installing a series of void formers, usually plastic or fibreglass that maximise the storage volume of the absorption trench while supporting the surface of the trench such that it can be treated and used similarly to the surrounding surface.

**Freeboard** - is a margin applied to the estimation of flood levels to compensate for factors such as wave action, localised hydraulic behaviour, climatic change and modelling confidence.
Gateways - areas containing structures and/or fauna, which provide a sense of entry to the city through access and visual impact.

Geodiversity - soils and geology. Management of geodiversity is essential to sustain biodiversity and human ecology.

Gravel filled absorption trench - an absorption trench filled with gravel so as to achieve a minimum 30% void ratio and allowing the surface of the trench to be treated and used similarly to the surrounding surface.

Greenfield estate - land that has been subdivided with consideration of the controls listed in this DCP for greenfield sites.

Greenfield site - undeveloped land that has been identified, through land use zoning, as having potential for future urban, commercial or industrial development. It is generally found on the fringes of existing developed areas and may contain a large amount of existing vegetation.

Green Travel Plan - a Green Travel Plan is a package of initiatives aimed at reducing car travel, particularly single occupant car trips. A Green Travel Plan encourages greater use of public transport, walking and cycling by residents, employees and visitors.

Gross Display Area (GDA) - the sum of the area intended to be used for the display or showing of product, including all access ways within these areas and any storage areas where the products can be viewed by the public/customers.

Gross floor area - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined by the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4m above the floor, and includes:
(a) the area of a mezzanine, and
(b) habitable rooms in a basement or an attic, and
(c) any shop, auditorium, cinema, and the like, in a basement or attic, but excludes:
(d) any area for common vertical circulation, such as lifts and stairs, and
(e) any basement:
   (i) storage, and
   (ii) vehicular access, loading areas, garbage and services, and
(f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and
(g) car parking to meet any requirements of the consent authority (including access to that car parking), and
(h) any space used for the loading or unloading of goods (including access to it), and
(i) terraces and balconies with outer walls less than 1.4m high, and
(j) voids above a floor at the level of a storey or storey above.

Gross leasable floor area (GLFA) - GLFA is the sum of the area of each floor of a building where the area of each floor is taken to be the area within the internal faces of the walls, excluding stairs, amenities, lifts, corridors and other public areas but including stock storage areas. Gross leasable floor area relates to the sum of the commercially leasable floor area and is also often referred to as Net Floor Area.
**Ground level (existing)** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as the existing level of a site at any point.

**Ground level (finished)** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as any point on a site, the ground surface after completion of any earthworks (excluding any excavation for a basement, footings or the like) for which consent has been granted or that is exempt development.

**Ground level (mean)** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as any site on which a building is situated or proposed, one half of the sum of the highest and lowest levels at ground level (finished) of the outer surface of the external walls of the building.

**Habitable room** - a room used for normal domestic activities including a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, playroom and sunroom. A habitable room excludes a bathroom, laundry, water closet, food-storage pantry, walk-in wardrobe, corridor, hallway, lobby, photographic darkroom, clothes-drying room, and other spaces of a specialised nature occupied neither frequently nor for extended periods. In commercial buildings a habitable room means any room used for normal commercial activities, including offices, kitchens, lunch rooms, common rooms and any other rooms occupied frequently.

**Heritage Act 1977** - an Act of the NSW Parliament providing for conservation orders and other controls over items having heritage significance. The Act is administered by the Heritage Council of NSW.

**Heritage significance** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note. The definition is defined as historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value.

**Heritage conservation area** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note. The definition is defined as an area of land of heritage significance:
(a) shown on the Heritage Map as a heritage conservation area, and
(b) the location and nature of which is described in Schedule 5, and includes any heritage items situated on or within that area.

**Heritage conservation management plan** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as a document prepared in accordance with guidelines prepared by the Department of Planning that documents the heritage significance of an item, place or heritage conservation area and identifies conservation policies and management mechanisms that are appropriate to enable that significance to be retained.
Heritage impact statement - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note. The definition is defined as a document consisting of:
(a) a statement demonstrating the heritage significance of a heritage item or heritage conservation area, and
(b) an assessment of the impact that proposed development will have on that significance, and
(c) proposals for measures to minimise that impact.

Heritage item - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as a building, work, place, relic, tree, object or archaeological site the location and nature of which is described in Schedule 5.

Heritage buildings, sites and elements - heritage items (including landscape and archaeological items, and building elements), buildings, works, relics, trees and sites within heritage conservation areas and heritage streetscapes.

Mean high water mark - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as the position where the plane of the mean high water level of all ordinary local high tides intersects the foreshore, being 1.44m above the zero of Fort Denison Tide Gauge and 0.515m Australian Height Datum.

Historic parking deficiency - the historic parking deficiency is determined by calculating the number of parking spaces required under the provisions of this DCP for an existing building or use and subtracting the number of spaces currently provided for that building or use.

Hydraulic behaviour threshold - is a set of circumstances (that may or may not be present at some locations at some time in any particular sized flood) that constitutes a particular level of hydraulic impact.

Host building - the existing building on the land that is the subject of an alteration or addition.

Human scale streetscape - means a streetscape that is scaled for the pedestrian.

Impervious area - an area which water runs off during a normal rainfall event, including roof areas and pavements (pavers, tiles, concrete, asphalt etc) but not including swimming pools and porous paving.

Impermeable surface - a surface that does not allow rainwater to infiltrate to the soil, such as buildings (roofs), roads, parking areas and courtyards.

Infill development - new urban development within existing developed areas. Often involves a more intensive use of the site. Infill development may encompass housing, retail, business, education, community service, and industrial activities.

In the vicinity - the surrounding context, environment or setting of a heritage item.

Infiltration - the practice of discharging drainage water to the ground.

Infiltration trench - a trench excavated into the soil for the purpose of dispersing all stormwater up to the 5% AEP event. Infiltration trenches will vary in volume depending on the permeability of the parent soil and should be designed by a qualified Civil Engineer based on soil permeability testing.
**Initial evaluation** - an assessment of readily available factual information to determine whether contamination is an issue requiring further investigation prior to:

▪ the preparation of a local environmental plan, development control plan or plan of management for community land; or
▪ the determination of a development application or Council activity assessed under Part 5 of the *Act*

that would have the effect of authorising a proposed change of use of land or the carrying out of earthworks.

**Intactness** - the degree of original elements, or elements from a significant period of development, which demonstrate the heritage significance of the building or group of buildings.

**Integrated development** - has the meaning given by section 91 of the Act.

**Internal fabric** - the interior fittings such as fireplaces, ceilings, joinery, walls, lifts, galleries, stairs, hardware and moveable items.

**Interpretation Plan** - a plan that presents the significant archaeological heritage of a site or property that is the subject of a development application.

**Intrusive building** - a building that has a negative effect on the character or heritage significance of a heritage conservation area.

**Investigation area** - land declared to be an investigation area by a declaration in force under Division 2 of Part 3 of the *Contaminated Land Management Act 1997*.

**Investigation order** - an order issued by the Environment Protection Authority under Division 2 of Part 3 of the *Contaminated Land Management Act 1997* to investigate contamination within an investigation area.

**Landmarks** - prominent or distinguishing buildings or features by which people orient themselves and identify places within the City.
Landscaped area - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The Landscape Area is defined as a part of the site used for growing plants, grasses and trees, is open to the sky but does not include any building, structure or hard paved area. The landscaped area should be designed in such a way that is free of conflicts with infrastructure, services and drainage pipes.

Under this DCP paving wider than 1m, impervious or otherwise, will not be considered as landscaping. Structures include, but are not limited to, such features as air conditioning systems, awnings, cubby houses, decks, fixed clotheslines, garden sheds, hot water systems, LPG storage tanks, patios, swimming pools, tennis courts, verandas, water tanks (eg. rainwater) and the like.

The first metre (ie. 1m) of a landscape area which falls under an awning, overhang, under croft (or similar) may be included within the landscape area calculations where it forms part of continuous landscape area 3m wide or greater, with the remaining larger portion being open to the sky and the development is supported by a comprehensive landscape plan (ie. ‘2m plus 1m’) (see Figure 1-Landscape area and awnings).

Lane - a publicly accessible narrow street that is open to the sky and which provides permanent pedestrian and/or vehicle connections through the city fabric at all hours.

Local Environmental Plan - is a type of environmental planning instrument under Part 3 of the Environmental Planning and Assessment Act 1979. Local environmental plans regulate development having local environmental significance. They are prepared by the Council and approved by the Minister for Planning.
Living area - of a dwelling includes habitable rooms frequently used for general recreation, entertainment and dining and includes living rooms, dining, family, lounge, rumpus room and the like but excludes non-habitable rooms, bedrooms, study, kitchen and other areas that are less frequently used.

Lot - refer to 'Allotment'.

Major alteration and addition - any alteration and addition where the area of the building which is the subject of the application, equals or exceeds 40% of the floor area of the existing building when measured to the outside surface of the existing walls. This includes areas of the existing building such as kitchens and bathrooms when these are included in the works within the application.

Major development - major development means residential development of any kind containing more than 50 dwellings; any new hospital, or additions to an existing hospital, where the new building or addition contains more than 100 beds; any new educational or training facility, or additions to an existing facility, that will cater for more than 50 students; any other form or type of development where the gross floor area will be more than 2000m2 and/or involve more than 50 employees.

Major drainage system - the part of the public drainage system in an urban area that carries relatively large flows. It consists of the system of streams, floodways, stormwater channels, retarding basins and street pavements. It is generally designed to protect people and indoor property from the effects of an extreme flood with an annual exceedance probability (AEP) of 1%.

Massing - the size and volume of a building.

Microgram - unit of mass equal to 1 millionth of a gram or 1 thousandth of a milligram.

Micron - unit of length equal to 1 millionth of a metre or 1 thousandth of a millimetre.

Milligram - unit of mass equal to 1 thousandth of a gram.

Minor drainage system - the part of the public drainage system in an urban area that carries relatively minor flows. It consists of the system of kerbs, gutters, roadside channels, swales, sumps and underground pipes. It is generally designed to control 'nuisance flows' which occur on a day-to-day basis typically with an annual exceedance probability (AEP) of 10%.


Manufactured home - has the same meaning as in the Local Government Act 1993.

Movement network - refers to access ways for pedestrian, cycles and vehicles.

Moving sign - Attached to a building and capable (as to any part of the advertisement or advertising structure) of movement by any source of power (whether or not included in any other class of advertising structure).

NABERS - NABERS (the National Australian Built Environment Rating System) is a performance-based rating system for existing buildings. NABERS rates a commercial office, hotel or residential building on the basis of its measured operational impacts on the environment.
**NatHERS or equivalent** - a computer simulation tool for rating the thermal performance of houses across Australia. The Energy Management Task Force is responsible for delivering a NatHERS compliance protocol. Any software or paper checklist which passes under this protocol is deemed 'NatHERS or equivalent'.

**Natural Light** – daylight received into a building

**Nominated integrated development** - integrated development that fits into 1 of 3 categories. The first category is if it requires approval by the Heritage Council under the *Heritage Act 1977*. The second category is if it requires an environmental protection licence from the Environment Protection Authority under the *Protection of the Environment Operations Act 1997*. The third category is if it requires certain licences or approvals from the Department of Planning and Infrastructure.

**Non-habitable room** - means spaces of specialised nature not occupied frequently or for extended periods, including bathrooms, toilets, pantries, walk-in wardrobes, corridors, lobbies, photographic darkrooms and clothes drying rooms.

**North point** - in any discussion relating to orientation of a dwelling or part thereof, a reference to 'north' is a reference to true solar north and not magnetic, or compass north. True solar north varies from magnetic north depending upon the location. In Sydney, for example, magnetic north is approximately 12º east of true solar north.

**Notice of completion** - a notice, required under State Environmental Planning Policy No.55, that is given to the consent authority when remediation work has been completed.

**Notification plan** - a plan showing:
- the height and external configuration of a proposed building in relation to the site and adjoining buildings; or
- in the case of a development proposal that does not involve the erection of a building, the general arrangement of the proposed development in relation to the site and adjoining buildings.

**Noxious Weeds** - trees and plant species declared as ‘noxious weeds’ within the Newcastle local government area, under the *NSW Noxious Weeds Act 1993*.

**Objectives** - statements describing desired outcomes.

**Occupation certificate** - means a certificate referred to in section 109C (1) (c) of the Act.

**Occupiable rooms (from flooding perspective)** - rooms of buildings where people may be present in the normal use of the building.

**Occupier** - has the same meaning as in the Act.

Note: The definition is defined as a tenant or other lawful occupant of premises, not being the owner.

**On-site stormwater detention (OSD)** - a stormwater management practice that limits the rate of discharge from a site using outlet restriction devices. Stormwater flows in excess of the capacity of the outflow control device is temporarily stored either in tanks or surface depressions until the storm event recedes. Stormwater flows are therefore released at a controlled rate into the public drainage system.

**On-site stormwater retention** - stormwater management practices where on-site stormwater runoff is actually captured and retained within the site for re-use or infiltration and is not released to the downstream drainage system.
Open space - is defined as an area external to a building (including an area of land, terrace, balcony or deck) that is used for outdoor purposes.

Operational land - has the same meaning as in the Local Government Act 1993.

Organic material - any matter that is comprised in part of carbon. It includes, but is not limited to garden waste such as grass clippings and leaves, animal wastes such as faeces, and any foodstuffs or their wastes.

Other advertised development - advertised development that is not nominated integrated development.

Other occupiers - persons who appear to the Council to occupy land, but who are not adjoining occupiers. This includes persons who occupy land directly across a public road from the site of a development proposal.

Other owners - persons who appear to the Council to own land, but who are not adjoining owners. This includes persons who own land directly across a public road from the site of a development proposal.

Overflow disposal - the disposal of flows that occur when the capacity of the site discharge controls is reached and such overflow.

Owner - has the same meaning as in the Local Government Act 1993 and includes, in Division 2A of Part 6, in relation to a building, the owner of the building or the owner of the land on which the building is erected.

Owner-builder - has the same meaning as in the Home Building Act 1989.

Parapet height - the parapet level is the horizontal plane in which at least 2/3 of the length of the top of the facade of the building adjacent to the street is situated.

Passive solar energy systems - systems which combine the sun's energy with local climate characteristics, to achieve thermal comfort inside buildings without the use of mechanical devices. In a passive system, the building itself is a solar collector, as well as a heat storage and transfer medium.

Pedestrian amenity - the capacity of walking routes, usually public footpaths on streets, to be comfortable along their entire lengths, with frontage development that is inviting and interesting to pedestrians.

Permeable surface - a surface treatment that allows rain water to infiltrate to the soil, such as grass, landscaping, gravel, porous pavement and coarse sand.

Permissible site discharge (PSD) - the maximum rate at which stormwater is permitted to be discharged from a given site area.

Plan depth - means the width of a building measured from the inside face of wall to inside face of wall or from the inside face of glass to inside face of glass. Plan depth is measured along the hortest axis, ie from front to back or side to side depending on the shape of building.

Planning flood - is the flood event from which the flood planning level is derived. It is expressed in terms of the probability of the event being exceeded, usually within any given year (see annual exceedance probability).

Pole or pylon sign - erected on a pole or pylon independent of any building or structure.
**Porte cochere** - a covered drive-through porch, often used in hotel development, large enough to accommodate vehicles such as tourist coaches.

**Porous paving** - a surface treatment that delivers the benefits of hard paving but maintains a high degree of permeability to allow rainfall to infiltrate the substrate and not produce runoff in common rainfall events.

**Port of Newcastle Lease Area** means land identified as “Port of Newcastle Lease Area” on the Lease Area Map contained in the Three Ports SEPP. This area is coloured Pink in Map 1 above.

**Potential archaeological site** - a place or site suspected of having a relic or relics present.

**Preliminary Archaeological Assessment** - a report that investigates the archaeological potential and levels of significance of land prior to determination of development consent.

**Principal area of private open space** - is a 4m x 4m level area of private open space directly accessible from the main living area of the dwelling.

**Principal area of private open space for single dwellings** - is a 3m x 4m level area of private open space directly accessible from the main living area of the dwelling.

Note: Private open space areas are able to be covered. If private open space areas are enclosed on all sides with walls greater than 1.4m they will not be considered private open space but form part of the gross floor area.

**Private open space** – has the same meaning as in Newcastle Local Environmental Plan 2012. The term is defined as an area external to a building (including an area of land, terrace, balcony or deck) that is used for private outdoor purposes ancillary to the use of the building.

Note: Under this DCP the definition excludes from private open space features such as, but not limited to awnings/overhangs, conditioning systems, cubby houses, fixed clotheslines, garden sheds, hot water systems, LPG storage tanks, swimming pools, tennis courts, water tanks (e.g. rainwater) and the like.

1 The first metre (i.e. 1m) of private open space area which falls under an awning, overhang, undercroft (or similar) can be included as private open space and where it forms part of continuous private open space area 4m** wide or greater, with the remaining larger portion being open to the sky and the development is supported by a comprehensive landscape plan (see Figure 2: Private open space and awnings).

** Private open space areas need to be at least 3m wide unobstructed and open to the sky. The first metre adjacent this 3m is allowed – ‘3m plus 1m’.
**Glossary**

**Preliminary investigation** - an investigation to identify any past or present potentially contaminating activities, provide a preliminary assessment of any site contamination, and if required, provide a basis for a detailed investigation. Reporting requirements for a preliminary investigation are as outlined in the publication Guidelines for Consultants Reporting on Contaminated Sites (EPA, 1997).

**Principal certifying authority** - means a principal certifying authority appointed under section 109E of the Act.

**Principal contractor** - for building work means the person responsible for the overall co-ordination and control of the carrying out of the building work.

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**Proponent** - a person or body seeking to carry out development on land.

**Probable maximum flood (PMF)** - is the largest flood that could conceivably occur at a particular location.

**Probable maximum flood level** - the flood level calculated to be the maximum which is likely to occur.

**Projecting wall sign** - Attached to the wall of a building (other than the transom of a doorway or display window) and projecting horizontally more than 0.3m from the wall.

**Property hazard** - is the ‘risk to property hazard category’ as a combination of hydraulic behaviour threshold and its effect on property. The risk to property hazards are based on the peak hydraulic behaviour thresholds ($H_l-H_w$) determined for the 1 in 100 annual chance flood.

**Public art** - (also known as town art or environmental art) is artwork that is commissioned to enrich the public domain.
**Publicly accessible space** - private or public land, which allows 24-hour access to the public in the form of walkways, outdoor dining or gardens.

**Public domain** - means the sum of public and private places and space including streets, roads, footways, plazas, promenades, squares, parks, beaches and reserves.

**Public drainage system** - a drainage system owned and operated by the Council or the Hunter Water Corporation Ltd.

**Published notice** - an advertisement placed in a newspaper.

**Public open space** - land used or intended for use for recreational purposes by the public and includes parks, public gardens, riverside reserves, pedestrian and cyclist access ways, playgrounds and sports grounds.

**Public place** - has the same meaning as in the *Local Government Act 1993*.

**Public reserve** - has the same meaning as in the Local Government Act 1993.

**Public tree** - any tree species growing on public land of any size.

**Public road** - has the same meaning as in the Roads Act 1993.

**Rainwater tank** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as a tank designed for the storage of rainwater gathered on the land on which the tank is situated.

**Recyclable** - any matter capable of being reprocessed into useable material or re-used providing facilities exist to do so.

**Reduced Level (RL)** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as the height above the Australian Height Datum, being the datum surface approximating mean sea level that was adopted by the National Mapping Council of Australia in May 1971.

**Registered community group** - a community group which is registered with the Council under the Public Participation Section.

**Remedial action plan** - a plan which sets remediation goals and documents the process by which it is proposed to remediate a site. Reporting requirements for a remedial action plan are as outlined in the publication Guidelines for Consultants Reporting on Contaminated Sites (EPA, 1997).

**Remediation** - works carried out for the purpose of:

- removing, dispersing, destroying, reducing, mitigating or containing the contamination of any land; or
- eliminating or reducing any hazard arising from the contamination of the land (including by preventing the entry of persons or animals on the land).

**Remediation order** - a remediation order made by the Environment Protection Authority and in force under Part 3 of the *Contaminated Land Management Act 1997*.

**Remediation site** - a site that is land declared to be a remediation site by a declaration in force under Division 3 of Part 3 of the *Contaminated Land Management Act 1997*.

**Regulation** - means a regulation made under the *Act*. 

Note: The definition is defined as a tank designed for the storage of rainwater gathered on the land on which the tank is situated.
**Relic** - the same as in the *NSW Heritage Act 1977* (as amended).

**Remediation site** - a site that is land declared to be a remediation site by a declaration in force under Division 3 of Part 3 of the *Contaminated Land Management Act 1997*.

**Research Design** - refers to the set of research questions and methodology developed for a site within a wider research framework.

**Restoration** - means returning the existing fabric of a building or work to a known earlier state by removing accretions or by reassembling existing components without the introduction of new materials.

**Retainable tree** - a tree that has been subjected to and passed the relevant assessment tests noted in Section 4 of the Technical Manual.

Note: that these tests are to be undertaken by a suitably qualified arborist.

**Retention tank** - a water tank, whether above ground or below ground designed to retard the discharge of runoff from an impervious surface to a rate not harmful to the environment.

**Riparian Zone** - is an area of river or creek bank that supports, or has at one time supported a unique ecosystem pertaining to the river microenvironment. Generally, a width of 40m is considered to be the minimum viable riparian zone.

**Road** - means a public road or a private road within the meaning of the *Roads Act 1993*, and includes a classified road.

**Road/Street reserve** - the land incorporating the full width from property line to opposite property line.

**Roof sign** - erected on or above the roof or parapet of a building.

**Roof terrace** - the flat roof of a lower level building, which is both directly accessible for the exclusive use from the dwelling it adjoins and also open to the sky except for a pergola or similar sun control devices.

**Routes** - roads or paths along which major movements occur and which provide the framework within which individual project sites are accessed.

**Runoff** - the portion of rainfall that flows across the ground surface as water.

**Scale** - the size of a building in relation to its surroundings.

**Section 94 Developer Contributions** - Section 94 of the Environmental Planning and Assessment Act 1979 is the principal legislation enabling Council to levy contributions for amenities and services. Contributions are imposed by way of a condition of consent and can be satisfied by either:

(a) dedication of land

(b) monetary contribution

(c) material public benefit

(d) combination of the above.
**Setting** - the context within which a building or structure is situated in relation to the surroundings. Components that may be part of a setting includes nearby buildings, roof scapes, chimneys, valleys, ridges, view corridors, trees and parks, view corridors, vantage points and landmarks.

**Significance assessment** - an assessment of the heritage significance of predicted or known archaeological features.

**Site audit** - an independent review by a site auditor:

(a) that relates to investigation or remediation carried out in respect of the actual or possible contamination of land; and

(b) that is conducted for the purpose of determining any 1 or more of the following matters:
   ▪ the nature and extent of any contamination of the land
   ▪ the nature and extent of the investigation or remediation
   ▪ what investigation or remediation remains necessary before the land is suitable for any specified use or range of uses.

Site audits are conducted in accordance with the Guidelines for the NSW Site Auditor Scheme (EPA, 1998).

**Site auditor** - a person accredited under the *Contaminated Land Management Act 1997* as a site auditor.

**Site audit statement** - a written statement by a site auditor that summarises the findings of a site audit. Site audit statements are prepared according to a standardised format prescribed in the *Contaminated Land Management Regulation 1998*.

**Site drainage line** - a piped drain that conveys stormwater from a development site to the public drainage system.

**Site History** - is a land use history of a site which identifies activities or land uses which may have contaminated the site, establishes the geographical location of particular processes within the site, and determines the approximate time periods over which these activities took place.

**Site investigation process** - the process of investigating land that is or may be contaminated. The purpose of the site investigation is to provide the Council with sufficient information for it to make an informed decision as to whether it should authorise a proposed change of use of land. A site investigation may include up to 4 stages:
   ▪ stage 1-preliminary investigation;
   ▪ stage 2-detailed investigation;
   ▪ stage 3-remedial action plan;
   ▪ stage 4-validation and site monitoring.

**Site investigation report** - includes one or more of the following: a preliminary investigation report, detailed investigation report, remedial action plan and validation and site monitoring report.

**Social impact** - changes that occur in:
   ▪ people's way of life (how they live, work, play and interact with one another on a day-to-day basis)
   ▪ their culture (shared beliefs, customs and values), and
   ▪ their community (its cohesion, stability, character, services and facilities).
Soil and Water Management Plan - a plan lodged with a development application that illustrates how stormwater, runoff and soils will be managed on the site. The plan should demonstrate the feasibility of both the proposed stormwater management system, and the proposed erosion, sediment and water quality control measures. The plan should be supported by preliminary hydrological calculations and other information in the accompanying Statement of Environmental Effects.

Solar collectors - any building treatment or appliance specifically designed to capture or collect the sun's rays for the benefit of the occupants eg. windows including clerestory (or highlight) windows, solar hot water collector panels, photovoltaic (solar-electricity) cells/panels.

Spa pool - has the same meaning as in the Swimming Pools Act 1992.

Note: The term is defined to include any excavation, structure or vessel in the nature of a spa pool, flotation tank, tub or the like.

Statutory requirement - a requirement under the provisions of an Act, Regulation, State Environmental Planning Policy, Regional Environmental Plan, Local Environmental Plan or other statutory instrument.

Street tree – trees identified by Council within the Street Tree Master Plan. These have been surveyed and mapped by Council.

Street tree vacancy site – sites identified by Council for future street tree planting. The sites have been identified from analysis of the Local Government Area based on criteria in the Tree Asset Management System (TAMS). The information on locations of street tree vacancy sites is available on request from Council.

Stormwater - the runoff from rainfall events.

Stormwater harvesting - the collection, storage and use of stormwater for domestic, industrial, irrigation or other purposes.

Stormwater Management Plan - a plan lodged with a development application that details the proposed use of structural infrastructure and treatment techniques to both improve stormwater quality and mitigate excessive flows.

Stormwater surface flowpath - land that carries concentrated surface flow during a rainfall event, the width, shape and gradient of which is designed to cater for the flow produced by a 1% annual exceedance probability (AEP) rainfall event. Includes a flowpath from the spillway of an on-site detention system.

Strata subdivision - defined as ‘subdivision’ in the Environmental Planning and Assessment Act 1979. Strata subdivision can subdivide buildings and land into separate lots capable of individual ownership, with additional areas of land designated as common property. Those owning lots within the scheme have a proportional entitlement to use the common property and also a proportional responsibility for its maintenance. Examples are buildings such as townhouses, flats, industrial units and shops, with outside areas such as gardens, driveways and car parking spaces usually being part of the common property lot, owned and managed by the ‘Owners Corporation’.
Street alignment - the boundary between land allotments and a street or lane.

Street frontage height - the vertical distance measured in metres at the centre of the street frontage from the average of the street levels at each end of the frontage to the parapet level of the frontage. The parapet level is the horizontal plane in which at least two thirds of the length of the top of the facade is situated. No part of the facade is to be less than 80 per cent of the height.

Streetscape - means the form, character and visual amenity of the street environment.

Street trees - trees within the road reserve.

Street tree vacancy site – sites identified by Council for future street tree planing. The sites have been identified from analysis of the Local Government Area based on criteria in the Street Tree Master Plan. The information on locations of street tree vacancy sites is available on request from Council.

Subdivision certificate - means a certificate referred to in section 109C (1) (d) of the Act.

Subdivision of land - has the meaning given by section 4B of the Act.

Subdivision work - means any physical activity authorised to be carried out under the conditions of a development consent for the subdivision of land, as referred to in section 81A (3) of the Act.

Subsidence - due to:
(a) the extraction of coal or shale;
(b) the prospecting for coal or shale carried out within a colliery holding by the proprietor of the holding;
and includes all vibrations or other movements of the ground related to any such extraction or prospecting (whether or not the movements result in actual subsidence), but does not include vibrations or other movements of the ground that are due to blasting operations in an open cut mine and that do not result in actual subsidence.

Summary site audit report - a report prepared by a site auditor containing key information and considerations concerning the conduct and findings of a site audit.

Sunlight – direct sunlight onto the ground or into a building.

Swale - a deliberately formed surface depression for the storage of stormwater runoff. Some swales also have a delayed conveyance function.

SWMMP - Site Waste Minimisation and Management Plan

Temporary sign - an advertisement or advertising structure which is to be displayed for a period not exceeding two months, or such shorter period as Council may otherwise determine and specify in the terms of approval.

The Code (for heritage purposes only) - refers to the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales.

Thermal mass - the heat storage capacity of a given assembly or system. Generally, the heavier and more dense a material is, the more heat it will store, and the longer it will take to release it. A concrete floor is an example of high thermal mass.
Three Ports SEPP - State Environmental Planning Policy (Three Ports) 2013.

Through site link - a pedestrian arcade or link that can be open to the air or enclosed and has a public character, providing a pedestrian right of way that is open and accessible at each end, at least during normal business hours.

Top hamper sign - Attached to the transom of a doorway or display window of a building.

Travel demand management - travel demand management is intervention (excluding the provision of major infrastructure) to modify travel decisions so that more desirable transport, social, economic and/or environmental objectives can be achieved, and the adverse impacts of travel can be reduced.

Tree retention values - weighted combination of tree sustainability and landscape significance used to determine how retainable a tree/s is to guide the site analysis and site planning stages of development. Tree retention values are determined using the following three steps further outlined within the Newcastle Urban Forest Technical Manual:
1. Assess Tree Sustainability
2. Assess Landscape Significance.
3. Weigh Sustainability and Landscape Significance.

Tsunami - a series of ocean waves with very long wavelengths (typically hundreds of kilometres) caused by large-scale disturbances of the ocean, such as:
- earthquakes
- landslide
- volcanic eruptions
- explosions
- meteorites.

Under awning sign - a sign located below or otherwise supported from the underside of an awning.

Undesirable species - tree species listed in the Newcastle Urban Forest Technical Manual that are unsuitable for replanting.

Urban forest - the totality of trees and shrubs on all public and private land in and around urban areas (including bushland, parkland, gardens and street trees) measured as a canopy cover percentage of the total area and is recognised as a primary component of the urban ecosystem.

Urban structure - those features of the urban area which give identity and legibility of the city to people passing through its various districts. Structures include gateways, landmarks, edges, and routes.

Urban village - urban villages are essentially pedestrian scale, medium to high density, mixed use concentrations of urban development served by efficient public transport and often derived from traditional town centre planning principles. An appropriate example of an urban village is Glebe in Sydney. The urban village concept places a high value on the importance of human interaction and sense of community by providing places and activities for local interchange.

Urban heat island - The areas of a metropolitan area which are significantly warmer than suburban or rural areas due to less vegetation and more land coverage.
**Validation and site monitoring** - the process of determining whether the objectives for remediation and any conditions of development consent have been achieved. Reporting requirements for validation and site monitoring are as outlined in the publication Guidelines for Consultants Reporting on Contaminated Sites (EPA, 1997).

**Verge** - means the part of the street reserve between the carriageway and the boundary of adjacent lots (or other limit to street reserve). It may accommodate public utilities, footpaths, stormwater flows, street lighting poles and planting.

**View** - an extensive or long range outlook towards a particular urban aspect or topographical feature of interest.

**View corridor** - generally take the form of cones of vision extending from a selected point towards the valued view.

**Vista** - a narrow view along a street terminated by a notable building or structure.

**Validation and site monitoring** - the process of determining whether the objectives for remediation and any conditions of development consent have been achieved. Reporting requirements for validation and site monitoring are as outlined in the publication Guidelines for Consultants Reporting on Contaminated Sites, 2000, EPA.

**Verandahs** - located on the ground floor. Commonly seen on terrace houses and bungalows.

**VENM** - virgin excavated natural material is natural material, such as clay, gravel, sand, soil or rock fines that:

- has been excavated or quarried from areas that are not contaminated with manufactured chemicals or process residues, as a result of industrial, commercial, mining or agricultural activities
- does not contain any sulfidic ores or soils or any other waste.

**Voluntary Planning Agreements** - an alternative to the payment of a Section 94 or Section 94A levy whereby the applicant may offer to enter into a Voluntary Planning Agreement with Council to fund or provide works in kind for providing infrastructure or facilities not otherwise required as part of the development. Acceptance of an offer is at the sole discretion of Council and where Council decides not to accept the offer, payment of the Section 94 or Section 94A levy will be required.

**Waste** - includes any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment; or any discarded, rejected, unwanted, surplus or abandoned substance; or any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, reprocessing, recovery or purification by a separate operation from that which produced the substance; or any substance prescribed by the regulation to be waste for the purpose of the Waste Minimisation and Management Act 1995.
**Waterfront land** - has the same meaning as in the *Water Management Act 2000*.

<table>
<thead>
<tr>
<th>Note: The definition of waterfront land in the <em>Water Management Act 2000</em> is:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) the bed of any river, together with any land lying between the bed of the river and a line drawn parallel to, and the prescribed distance inland of, the highest bank of the river, or</td>
</tr>
<tr>
<td>(a1) the bed of any lake, together with any land lying between the bed of the lake and a line drawn parallel to, and the prescribed distance inland of, the shore of the lake, or</td>
</tr>
<tr>
<td>(a2) the bed of an estuary, together with any land lying between the bed of the estuary and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the estuary, or</td>
</tr>
<tr>
<td>(b) if the regulations so provide, the bed of the coastal waters of the State, and any land lying between the shoreline of the coastal waters and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the coastal waters,</td>
</tr>
</tbody>
</table>

where the prescribed distance is 40m or (if the regulations prescribed a lesser distance, either generally or in relation to a particular location or class of locations) that lesser distance. Land that falls into two or more of the categories referred to in paragraphs (a), (a1) and (a2) may be waterfront land by virtue of any of the paragraphs relevant to that land.

**Water cycle management plan** - a plan that identifies additional opportunities to minimise reticulated mains water use. The plan should detail the whole of the water cycle and any public health issues. It may also include consideration of the storage and use of grey water and the installation of water efficient appliances.

**Water sensitive urban design** - the consideration of the water cycle, the incorporation of the values of natural aquatic systems and the recognition of the principles of the resource conservation and reuse in planning and design of the urban and built form.

**Window** - includes a roof skylight, glass panel, glass brick, glass louvre, glazed sash, glazed door, translucent sheeting or other device which transmits natural light directly from outside a building to the room concerned.

**Written notice** - a letter served on a person by post or personal delivery.

**Zero lot line** - a dwelling with no side boundary setback on one side of the lot - i.e. the dwelling is built to the boundary. The wall of the dwelling on the lot line has no windows and is constructed in accordance with the Building Code of Australia (BCA).
CCL 28/06/16
AMENDMENT TO SECTION 7.06 STORMWATER - NEWCASTLE
DEVELOPMENT CONTROL PLAN 2012

Attachment A: draft Amended Section 7.06 Stormwater
7.06 Stormwater

Amendment history

<table>
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<th>Version Number</th>
<th>Date Adopted by Council</th>
<th>Commencement Date</th>
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<td>3</td>
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</table>

Savings provisions

Any development application lodged but not determined prior to Version 3 of this section coming into effect will be determined as if Version 3 had not commenced.

Land to which this section applies

This section applies to all land to which the Newcastle Local Environmental Plan 2012 applies.

Development (type/s) to which this section applies

This control applies to all development which this DCP applies.

Applicable environmental planning instruments

The provisions of the following listed environmental planning instrument/s and legislation also apply to development applications to which this section applies:

- Newcastle Local Environmental Plan 2012
- State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
- State Environmental Planning Policy (Building Sustainability Index: BASIX 2004)
- Water Management Act 2000

In the event of any inconsistency between this section and the above listed environmental planning instruments and legislation, the environmental planning instrument and legislation will prevail to the extent of the inconsistency.

Note 1: Additional environmental planning instruments may also apply in addition to those listed above.

Note 2: Section 74E (3) of the Environmental Planning and Assessment Act 1979 enables an environmental planning instrument to exclude or modify the application of this DCP in whole or part.

Related sections

The following sections of this DCP may also apply to development to which this section applies:

- Section 3.01 Subdivision
- Section 7.07 Water Efficiency
- Section 7.02 Landscape, Open Space and Visual Amenity
Associated technical manual/s

- Stormwater and Water Efficiency for Development Technical Manual, Newcastle City Council (check Council website for current version)

Additional information

Significant references

- AS/NZS 3500 Plumbing and Drainage 2013
- AS/NZS 3725 Design for installation of buried concrete pipes
- AS/NZS 4058 Precast concrete pipes (pressure and non-pressure)
- Australian Rainfall and Runoff, 1987, Engineers Australia
- Draft NSW MUSIC Modelling Guidelines (BMT WBM, 2010)
- Standard Drawings, Newcastle City Council
- Water sensitive design solutions for catchments above wetlands by Hunter and Central Coast Regional Environmental Management Authority

Other references:

- Australian Guidelines for Urban Stormwater Management, 2000, ANZECC
- Guidelines for riparian corridors on waterfront land, Department of Primary Industries, Office of Water
- Introduction to Urban Stormwater Management in Australia, 2002, Environmental Australia
- Managing urban stormwater: harvesting and reuse, 2006, Department of Environment and Conservation NSW (now Office of Environment and Heritage)
- Newcastle City-wide Floodplain Risk Management Study and Plan, Final Report, June 2012, Newcastle City Council
- Newcastle Environmental Management Plan, 2003, Newcastle City Council
- Newcastle Stormwater Management Plan, 2004, Newcastle City Council
- Water Sensitive Urban Design Book (Landcom)
  - Book 1: Policy
  - Book 2: Planning and Management
- Interim Reference Guideline, Concept Design Guidelines for WSUD (SMCMA, 2011), WSUD.org
Definitions

A word or expression used in this development control plan has the same meaning as it has in Newcastle Local Environmental Plan 2012, unless it is otherwise defined in this development control plan.

Other words and expressions referred to within this section are defined within Part 9.00 - Glossary of this plan, and include:

**Absorption trench** - a trench excavated into the ground for the purpose of storing an initial volume of rainfall before that water seeps into the soil in which the trench is excavated.

**Annual exceedance probability (AEP)** - is the probability that a flood of a given or larger magnitude will occur within a period of one year

**Broad Scale Development** - Includes all development types other than dual occupancy and single dwelling houses

**Discharge Control** - a device that stores water and limits the rate of discharge from the development site.

**Dispersion trench** - a 600mm x 600mm trench, 1m long for every 25m² of catchment draining to it (regardless of whether or not a discharge control is used) excavated into the ground for the purpose of dispersing overflows and discharges from stormwater systems. Dispersion trenches are only for single dwellings that drain to the rear.

**Drainage** - means any activity that intentionally alters the hydrological regime of any locality by facilitating the removal of surface or ground water. It may include the construction, deepening, extending, opening, installation or laying of any canal, drain or pipe, either on the land or in such a manner as to encourage drainage of adjoining land.

**Easement** - a legal right held by an owner of land or public authority in respect of another land parcel. Easements are commonly created to enable access across other properties, such as for drainage, pipelines, footways, etc.

**Erosion and Sediment Control Plan** - a plan lodged with a development application that illustrates how erosion and sediment control will be managed during the construction phase of the development.

**Gravel filled absorption trench** - an absorption trench filled with gravel so as to achieve a minimum 30% void ratio and allowing the surface of the trench to be treated and used similarly to the surrounding surface.

**Impervious area** – an area of impermeable surface (excluding pools and porous paving).

**Impermeable surface** - a surface that does not allow rainwater to infiltrate to the soil, such as buildings (roofs), roads, parking areas and courtyards.

**Infiltration** - the practice of discharging drainage water to the ground.

**Infiltration trench** - a trench excavated into the soil for the purpose of dispersing all stormwater up to the 5% AEP event. Infiltration trenches will vary in volume depending on the permeability of the parent soil and should be designed by a qualified Civil Engineer based on soil permeability testing.
**Large Scale Development** - development sites that are larger than 5,000m².

**Major drainage system** - the part of the public drainage system in an urban area that carries relatively large flows. It consists of the system of streams, floodways, stormwater channels, retarding basins and street pavements. It is generally designed to protect people and indoor property from the effects of a flood with an annual exceedance probability (AEP) of 1%.

**Minor drainage system** - the part of the public drainage system in an urban area that carries relatively minor flows. It consists of the system of kerbs, gutters, roadside channels, swales, sumps and underground pipes. It is generally designed to control flows which occur frequently, typically with an annual exceedance probability (AEP) of 10%.

**On-site stormwater detention (OSD)** - a stormwater management practice that limits the rate of discharge from a site using outlet restriction devices. Stormwater flows in excess of the capacity of the outflow control device is temporarily stored either in tanks or surface depressions until the storm event recedes. Stormwater flows are therefore released at a controlled rate into the public drainage system.

**On-site stormwater retention** - stormwater management practices where on-site stormwater runoff is actually captured and retained within the site for re-use or infiltration and is not released to the downstream drainage system.

**Overflow disposal** - the disposal of flows that occur when the capacity of the site discharge controls is reached and such overflow.

**Permeable surface** - a surface treatment that allows rain water to infiltrate to the soil, such as grass, landscaping, gravel, porous pavement and coarse sand.

**Permissible site discharge (PSD)** - the maximum rate at which stormwater is permitted to be discharged from a given site area.

**Porous Paving** - paving that maintains a high degree of permeability to allow rainfall to infiltrate the substrate and not produce runoff in common rainfall events.

**Public drainage system** - a drainage system owned and operated by the Council or the Hunter Water Corporation.

**Rainwater tank** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The Newcastle Local Environmental Plan 2012 defines a rainwater tank as a tank designed for the storage of rainwater gathered on the land on which the tank is situated.

**Riparian Zone** - is an area of river or creek bank that supports, or has at one time supported a unique ecosystem pertaining to the river microenvironment. Generally, a width of 40m is considered to be the minimum viable riparian zone.

**Runoff** - the portion of rainfall that flows across the ground surface as water.

**Site drainage line** - a piped drain that conveys stormwater from a development site to the public drainage system.

**Single Dwelling Houses** - a dwelling house on a block of land with no other dwellings.

**Small Scale Development** - development sites that are smaller than 5,000m².
Soil and Water Management Plan - a plan lodged with a development application that illustrates how stormwater, runoff and soils will be managed on the site. The plan should demonstrate the feasibility of both the proposed stormwater management system, and the proposed erosion, sediment and water quality control measures. The plan should be supported by preliminary hydrological calculations and other information in the accompanying Statement of Environmental Effects.

Stormwater - the runoff from rainfall events.

Stormwater harvesting - the collection, storage and use of stormwater for domestic, industrial, irrigation or other purposes.

Stormwater Management Plan - a plan lodged with a development application that details the proposed use of structural infrastructure and treatment techniques to both improve stormwater quality and mitigate excessive flows.

Stormwater surface flowpath - land that carries concentrated surface flow during a rainfall event, the width, shape and gradient of which is designed to cater for the flow produced by a 1% annual exceedance probability (AEP) rainfall event. Includes a flowpath from the spillway of an on-site detention system.

Swale - a deliberately formed surface depression for the storage of stormwater runoff. Some swales also have a delayed conveyance function.

Waterfront land - has the same meaning as in the Water Management Act 2000.

Note: The definition of waterfront land in the Water Management Act 2000 is:

(a) the bed of any river, together with any land lying between the bed of the river and a line drawn parallel to, and the prescribed distance inland of, the highest bank of the river, or

(a1) the bed of any lake, together with any land lying between the bed of the lake and a line drawn parallel to, and the prescribed distance inland of, the shore of the lake, or

(a2) the bed of an estuary, together with any land lying between the bed of the estuary and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the estuary, or

(b) if the regulations so provide, the bed of the coastal waters of the State, and any land lying between the shoreline of the coastal waters and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the coastal waters,

where the prescribed distance is 40m or (if the regulations prescribed a lesser distance, either generally or in relation to a particular location or class of locations) that lesser distance. Land that falls into two or more of the categories referred to in paragraphs (a), (a1) and (a2) may be waterfront land by virtue of any of the paragraphs relevant to that land.

Water cycle management plan – a plan that identifies additional opportunities to minimise reticulated mains water use. The plan should detail the whole of the water cycle and any public health issues. It may also include consideration of the storage and use of grey water and the installation of water efficient appliances.

Water sensitive urban design - planning and design of the urban and built form with the incorporation of the total water cycle and recognition of conservation principles and reuse.
Aims of this section

1. To outline Council’s requirement for stormwater management for development.
2. To adopt a whole of water cycle approach to development.
3. To ensure an appropriate quality and quantity of water enters waterways.

Note: Specialist advice
Applicants are encouraged to employ the services of an appropriately qualified and experienced professional, such as a Stormwater/Environmental Engineer or Hydrologist, to assist them with the development of appropriate plans and documents to meet the requirements of this DCP. Discharge controls should be considered and incorporated into development as early as possible to ensure a holistic, integrated and economical design. When considering engaging a specialist, applicants should have regard to the size and complexity of the proposed development.

7.06.01 Plan requirements

Objectives

1. Outline the stormwater documents that are required to be submitted with a development application.
2. Ensure appropriate plans and documents are provided to Council to adequately assess water management in proposed developments.

Controls

The following controls apply to all development to which this section applies

1. For the purpose of this section, the following documents are submitted with a development application for the development type listed in Table 1.
### Table 1: Documents which are required to be submitted with a development application

<table>
<thead>
<tr>
<th>Development type</th>
<th>Required documents</th>
<th>Modelling</th>
</tr>
</thead>
</table>
| 1. Development proposals that are the scale of a dual occupancy or smaller (see note 2) | • Stormwater management plan  
• Erosion and sediment control plan                                                  | Not required                                                             |
| 2. Development proposals that:                                                   | • Water cycle management plan  
• Soil and water management plan  
• Broad scale development assessment checklist for water sensitive urban design (see Note 2) | For large scale development hydrological and hydraulic modelling assessment is required in accordance with Section 7.06.02 of this DCP and the Stormwater and Water Efficiency for Development Technical Manual. **Modelling shall be in accordance with Newcastle MUSIC link.** |
| • Incorporate 20 or more dwellings; or                                          |                                                                                    |                                                                         |
| • Accommodate 50 or more employees or clients, or                                |                                                                                    |                                                                         |
| • Involves the use of more than 1 hectare of land for commercial, industrial or special use purposes. |                                                                                    |                                                                         |
| 3. All other development                                                         | • Stormwater management plan  
• Erosion and sediment control plan  
• Broad scale development assessment checklist for water sensitive urban design (see Note 2) | For large scale development hydrological and hydraulic modelling assessment is required in accordance with Section 7.06.02 of this DCP and the Stormwater and Water Efficiency for Development Technical Manual. **Modelling shall be in accordance with Newcastle MUSIC-link.** |

**Note 1:** Plans submitted to Council should be drawn in accordance with the requirements in Council’s checklists for development applications.

**Note 2:** The broad scale development assessment checklist for water sensitive urban design can be found in the Stormwater and Water Efficiency for Development Technical Manual. This is generally only required for development of a scale greater than dual occupancies in size. However, site circumstances may require a checklist to be submitted after lodgement.

**Note 3:** Definitions of each of the plans in Table 1 is provided in the definitions section at the start of this section and in Section 9.00 Glossary of this DCP.
7.06.02 All Development

Objectives

1. Ensure stormwater is controlled in a way that minimises nuisance to adjoining properties.

2. Match post development runoff to the pre development or natural water runoff regime as closely as possible.

3. Minimise soil erosion and sedimentation from site disturbance.

4. Prevent pollutants such as litter, sediment, nutrients and oils from entering waterways.

5. Minimise the potential impacts of development and other associated activities on the aesthetics, recreational and ecological values of receiving waters.

6. Ensure appropriate easements are provided over drainage systems on private properties.

7. Ensure easements are unimpeded by development for maintenance purposes.

8. Protect natural watercourses and their associated ecosystems and ecological processes.

9. Incorporate water sensitive urban design elements into the landscape in a manner that provides multiple benefits including: water quality protection; stormwater retention and detention as well as ecological enhancement.

10. Provide objectives, targets and controls (where appropriate) for the management of waterfront lands, water use, stormwater and groundwater.

11. Ensure stormwater infrastructure is identified on site and can be appropriately maintained.

Controls

The following controls apply to all development to which this section applies and is specific to catchments within and outside of SEPP 14 wetland areas [see parts 1. (c), (d), (e) and (f)]

1. The water cycle management plan or stormwater management plan (whichever is submitted with the development application) includes the following items:

   (i) the location of all buildings, driveways and impervious surfaces

   (ii) the location of any watercourses or bushland passing through or adjacent to the property

   (iii) any overland flowpaths which drain through the property or adjacent to the property

   (iv) the location, size and depth of easements or drainage pipelines

   (v) the discharge point of the site into the public drainage system.

   (vi) cross section and long sections of major drainage structures.
The water cycle management plan or stormwater management plan shows the appropriate design elements to achieve compliance with the requirements set out in the following subclauses relating to:

(a) Stormwater collection

i) Surface levels are to be graded such that sites are generally free draining with sufficient overflow capacity to ensure that waters do not enter buildings when underground drainage systems are beyond their capacity.

ii) Drainage pits are to be installed so that nuisance water does not collect at low points.

iii) Gutters, down pipes and pits are to be connected to the stormwater management system for the site.

Note: Australian Standard 3500.3 sets appropriate standards for stormwater collection and is to be followed when constructing new development. Part 3 of the Stormwater and Water Efficiency for Development Technical Manual provides more guidance on stormwater collection and should also be considered.

(b) Flooding and runoff regimes

i) Development is to be designed so that runoff from low intensity, common rainfall is equivalent to the runoff from a natural catchment. This can be achieved by intercepting and storing 12mm of rainfall from a minimum of 90% of the impervious area of the site.

ii) Runoff generated by more intense rainfall needs to be managed so that downstream drainage systems are not compromised beyond their design criteria. In general runoff from the development up to and including the 5% AEP shall be collected and drained underground. Public drainage (minor system) has a design capacity of the 10% AEP and connections from private development shall be made subject to the 10% AEP hydraulic grade line of the public drainage being lower than the property drainage system.

iii) Runoff from the development up to the 1% AEP shall be drained to the major drainage system in a manner that poses nil adverse impact to neighbouring property.

iv) Development is to be designed so that peak runoff from the site for all events is not greater than the ‘natural’ drainage conditions of the site.

(c) Storage

i) General

For sites of less than 50% impervious area, development shall provide 12mm of storage to meet the peak runoff requirements. Where the proposed development covers 100% of the site area, the interception and storage of 25mm of rainfall will achieve the peak runoff requirement. The rainfall depth storage can be linearly interpolated between 12mm and 25mm for sites between 50% and 100% of the impervious area of the site. Where there is a change in the impervious area of an existing site, the entire site is to be considered as pre developed or in a natural condition in regard to impervious areas for design purposes. The
recommended storage provisions to satisfy the requirements for are shown diagrammatically in Figure 1. Examples of suitable site storage provisions, for some standard sized sites with particular impervious area coverage are shown in Table 2.

**Figure 1: Impervious area to storage requirement relationship**

![Diagram showing volume requirement vs. percentage of impervious area]

### Table 2: Minimum storage requirements

<table>
<thead>
<tr>
<th>Site Area</th>
<th>Impervious Area</th>
<th>100m²</th>
<th>250m²</th>
<th>300m²</th>
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<th>1000m²</th>
<th>1500m²</th>
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</tbody>
</table>

**Note 1:** Porous paving is not included in the impervious area calculation.  
**Note 2:** Where a rainwater tank volume is less than the required storage then the shortfall shall be provided in other site discharge controls for sites greater than 600m².

For a single dwelling house, a rainwater tank with a minimum capacity of 4,000L is required in order to reduce mains water demand and to assist in minimising stormwater discharge from the site. In some cases BASIX will require a larger tank that will further reduce mains water demand.
The roof area directed to a rainwater tank should be maximised, to both increase the effectiveness and reliability of the reuse system, and reduce the degree of stormwater treatment required for those areas not draining to the rainwater tank.

Rainwater tanks are not required for additions to existing houses, however, where rainwater tanks are provided, the volume of the tank can be used to offset any additional discharge control storage that is required.

All rainwater tanks must be fitted with a first flush device to prevent contaminants fouling water and to prolong the life of the tank.

For large scale development it will be necessary to undertake a more rigorous hydrologic and hydraulic assessment to demonstrate that the flooding and runoff regimes are being satisfied in accordance with Council’s requirements and the Stormwater and Water Efficiency for Development Technical Manual.

ii) SEPP 14 wetland catchments

Note: Refer to Appendix 2 of the Stormwater & Water Efficiency for Development Technical Manual for SEPP 14 wetland catchments.

To meet the hydrology objectives for development draining to SEPP14 wetlands a deemed to comply solution has been developed where specific rainwater tank configurations are required. The tank sizes shall be adopted for all small scale development and can be used as a guide for large scale development.

Rainwater tanks configured such that:

- All roofs greater than 10m² drain to a rainwater tank
- 100% of the roof area drains to the rainwater tank
- Only roof areas are connected to the tank
- 50% of the rainwater tank is to be provided as air space. The top half of the rainwater tank is to drain to a small 5mm weep hole. The weep hole is to be located at the mid-point of the tank and is to drain to the overflow pipe for the rainwater tank.

The size of the tank is based on the roof area. Refer to Table 3 below for details.

**Table 3 SEPP14 Wetland Rainwater Tank Size**

<table>
<thead>
<tr>
<th>Roof Area (m²)</th>
<th>Total Tank Size Required (kL)</th>
<th>Leaky tank volume (kL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-50</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>51-100</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>101-150</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>151-300</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>301-500</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>&gt;500</td>
<td>Min: Roof Area x 0.04</td>
<td>50% of Tank Volume</td>
</tr>
</tbody>
</table>
(d) **Storage drawdown**

i) General

In order to provide sufficient capacity to accommodate subsequent rainfall events, the stored water must be drawn down at a minimum rate of 2mm of rainfall per day (0.023L per second per 1000m² contributing catchment). In general, this can be achieved by using the water internally in the development by connection to toilet cisterns and washing machine taps, or by disposing to groundwater. While the stored water can be used for garden irrigation, there are few additional benefits to stormwater management due to the intermittent nature of garden watering (especially during rain). Notwithstanding the above, use of stored water for garden irrigation is encouraged.

Alternatively, the stored water may be released back to the catchment. In order to ensure flows do not form erosive velocities downstream, the maximum discharge rate must not exceed 2mm of rainfall per hour (0.5L per second per 1000m² contributing catchment).

ii) SEPP14 wetlands catchments

Note: Refer to Appendix 2 of the Stormwater & Water Efficiency for Development Technical Manual for SEPP 14 wetland catchments.

The rainwater tanks must be plumbed into the following non potable uses with a separate pipe connection to that of the potable water supply:
- irrigation
- outside taps
- all toilets
- washing machine taps and all laundry basin taps
- hot water service

Stored water shall not be released back to SEPP 14 wetlands catchments.

(e) **Site discharge controls**

i) General

The above requirement relating to storage and drawdown can be achieved by installing ‘site discharge controls’. Selection of appropriate ‘site discharge controls’ will largely depend on the constraints and opportunities presented by the site and are a matter for the applicant to integrate with the development proposal.

Alterations and additions within the existing building footprint, such as building a second floor, do not require additional discharge controls. The requirement to manage runoff regimes does not apply for additions less than 50m² or 20% of the existing ground floor area (whichever is greater), up to a maximum addition of 150m². For additions larger than 50m², additional discharge controls are required at a rate of 1.8m³ for every 100m² of additional impervious area.

Additional discharge controls may be selected from a combination of one or more of the following measures:
- rainwater tanks
- absorption trenches
- on-site retention
- swales
- vegetated swales
- bioretention rain gardens
- bioretention swales
- porous paving (this is not a discharge control but it reduces the overall impervious area on a site)
- Sand filters with basins (not recommended for single dwelling houses)
- Constructed wetlands (not recommended for small scale development)
- Sediment basins (not recommended for small scale development)

Details for certain ‘site discharge controls’ can be found in Part 4 of the ‘Stormwater and Water Efficiency for Development Technical Manual’.

Site discharge controls are to be designed and installed for each impervious segment of a site’s catchment and include appropriate storage and water quality devices for that segment.

ii) SEPP 14 wetland catchments

Note: Refer to Appendix 2 of the Stormwater & Water Efficiency for Development Technical Manual for SEPP 14 wetland catchments.

In order to meet the hydrology objectives in Table 4 site discharge controls are required for the following:

- Rainwater tanks only for single dwelling houses having a lot area of less than 600m²
- For other small scale development either bioretention systems or on-site retention systems with sandfilter in addition to the rainwater tanks.
- For large scale development a site specific solution is to be prepared. Rainwater tanks are to be provided at a lot scale and additional site discharge controls are required in other areas. All controls shall be located within the site boundary of the development.

Details for certain site discharge controls can be found in Part 4 of the Stormwater and Water Efficiency for Development Technical Manual.

(f) Water Quality and Quantity Targets

i) All development covered by this section of the DCP is to achieve the targets set out in Table 4. These targets relate to post-construction. The site discharge controls in Part 4 of the ‘Stormwater and Water Efficiency for Development Technical Manual’ have been designed with inbuilt mechanisms to filter pollutants. Where one or more of the prescribed site discharge controls are applied according to the technical manual, the pollutant load in stormwater runoff is reduced and is deemed to comply to the pollutant targets.
### Table 4: Water quality and water quantity targets

<table>
<thead>
<tr>
<th>Target</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Suspended Solids</td>
<td>85% reduction in the average annual load of Total Suspended Solids.</td>
</tr>
<tr>
<td>Total Nitrogen</td>
<td>45% reduction in the average annual load of Total Nitrogen.</td>
</tr>
<tr>
<td>Phosphorous</td>
<td>65% reduction in the average annual load of Total Phosphorus.</td>
</tr>
<tr>
<td>Gross Pollutants</td>
<td>90% reduction in the average annual load of Gross Pollutants (&gt;5mm).</td>
</tr>
<tr>
<td>Hydrocarbons</td>
<td>100% removal.</td>
</tr>
<tr>
<td>Stream Flows</td>
<td>The Stream Erosion Index (SEI) is to be no greater than 2, where the SEI is expressed as the ratio of ‘post development flow exceeding the stream forming flow’ to ‘pre development flow exceeding the stream forming flow’.</td>
</tr>
</tbody>
</table>

1Hydrology Objectives for developments in SEPP 14 wetland catchments

- The post development 7 day flooding hydrology (high flow) is to match the pre development 7 day flooding hydrology (high flow) up to the 80<sup>th</sup> percentile.
- The post development 30 day drying hydrology (low flow) is to match the pre development 30 day drying hydrology (low flow) up to the 80<sup>th</sup> percentile.

**Note 1:** Refer to the Stormwater and Water Efficiency for Development Technical Manual for further information on hydrology targets for development in SEPP 14 wetland catchments. A map of the SEPP 14 wetlands catchment area is shown in Appendix 2.

**Note 2:** Refer to the Stormwater and Water Efficiency for Development Technical Manual for further information on water quality and water quantity.

The reduction in loads is relative to the stormwater pollution loads expected from conventional urban development without stormwater treatment measures. The stream forming flow is defined as 50% of the 2-year flow rate estimated for the catchment under natural conditions.

For developments larger than 5,000m<sup>2</sup>, or development which will become a Council asset, it will be necessary to undertake a more rigorous modelling assessment to demonstrate that the pollutant (water quality and water quantity) reduction targets in Table 4 will be met.

**ii)** Gross Pollutant Traps. The objective of Gross Pollutant Traps (GPT’s) is to remove contaminants such as sediment, oil and other pollutants before it discharges into the receiving system. GPTs must be installed for the following developments:
- residential developments with more than four dwellings
- all commercial developments that may involve the use, storage or transportation of contaminants
- commercial developments on allotments greater than 2,000m<sup>2</sup>
- all industrial developments
- upstream of all bioretention devices.
(g) Overflow disposal

The objective of overflow disposal is to ensure that development is designed so that overflows do not adversely affect neighbouring properties by way of intensification, concentration or inappropriate disposal across property boundaries. This can be achieved by securing appropriate easements over downstream properties or discharging overflows directly to the street system where feasible. Overflows from paved areas adjacent to the property boundary are to be directed by a kerb or formed gutter to drain away from neighbouring properties.

A dwelling house that drains to the rear of the property is not required to obtain an easement over downstream lands. Dispersion trenches may be used where an easement cannot be obtained for single dwelling houses only.

Note: Part 5 of the Stormwater and Water Efficiency for Development Technical Manual provides more advice on the disposal of overflows.

(h) Existing drainage systems

Where a drainage system serving other lands is located on the development site, that system is to be protected by an easement in favour of the beneficiary of the drainage system in order to permit the continued use of the drain. At the same time, a drainage easement gives the beneficiary the right to maintain the pipes contained in the easement. Where necessary, upstream lots are to be given a legal right to drain through a development site.

New buildings are not to be constructed over or compromise the integrity of drainage lines or easements including those originating from outside the site.

Where an existing drainage line runs under a proposed building, the drainage line and any associated easement is to be diverted around the building. Redundant easements are to be extinguished and new easements are to be created. Where an existing drainage system across the site is retained, access to the existing system is not to be affected by the proposed development. The development is to be designed so as not to degrade the structural integrity of the system.

Note: Extinguishing or creating an easement will need to be carried out in accordance with the Conveyancing Act 1919.

Pollution reduction devices are to be retrofitted to existing development where practical. Preliminary advice should be sought from Council should the applicant believe such measures are impractical.

(i) Installation and maintenance requirements

i) Erosion and sediment controls are to be installed prior to the commencement of work, maintained throughout the course of the work and are not to be removed until the site is stable with all bare areas supporting an established vegetative cover.

ii) All drainage elements and water saving fixtures and appliances nominated in the application or required by conditions of consent are to be installed and operational prior to the issue of the occupation certificate for the new building. Drainage elements and water saving fixtures and appliances must be appropriately maintained throughout the life of the building.
2. Structures are not to be located within a drainage easement or where there is no easement, within 1.5m of the centreline of a drainage pipe. Eave overhangs are permitted subject to at least 4.5m clearances to ground level. Footings for buildings should not be founded on material that is shallower than a line drawn at 45° to the vertical from the bottom edge of the existing drainage system.

Note: The stormwater storage, infiltration or water quality system may need to be endorsed on any associated subdivision certificate for the development with a positive covenant. Council shall be nominated as the sole authority to modify, vary or release the covenant.

3. Maintenance manuals are to be provided for all devices in large scale development and selected devices for other types of development that include on-site retention, bioretention rain gardens, bioretention swales, porous paving and sand filters within basins. The manual is to address maintenance issues including routine monitoring and maintenance as well as any associated components (such as vegetation, subsurface drainage, filter material, flush outs, etc) of the system that could impact on device performance. Periodic monitoring and maintenance is to ensure the system functions as designed, and meets water quality and quantity targets as indicated in the DCP (see Table 4) over the life cycle of the device. The manual is to be kept onsite.

Note: See the Stormwater and Water Efficiency for Development Technical Manual for a Maintenance Manual example.

4. Each on site stormwater management system shall be indicated on site by fixing a marker plate or sign in a prominent position. The marker plate or sign is to be provided in accordance with the Stormwater and Water Efficiency for Development Technical Manual.

5. First order streams within Newcastle LGA require assessment for their riparian corridor function and proposed development is designed to protect such first order streams and their contribution to reduction of stream erosion index (SEI).

6. Stormwater treatment measures are integrated into the urban design and landscaped areas.

7. Stormwater treatment measures are located, and configured, to maximise the impervious area that is treated. Devices are to be located within the property boundary.

8. Structural stormwater treatment measures must be able to bypass flows in excess of the design discharge with negligible concentrated flows resulting from overtopping or blockage of the device to protect property life and maximise infrastructure performance and useful life.

9. Water use within open spaces (for uses such as irrigation and water features) is supplied from non potable sources such as recycled water, roof water, harvested stormwater or other non licensed water sources to meet a minimum of 50% of the demand and treated to an appropriate standard in accordance with NSW State Government and Commonwealth Standards.

Note: Development which discharges to natural waterways or is carried out on water front land is to meet the requirements of the Water Management Act 2000 and the Department of Primary Industry Office of Water guidelines for riparian corridors on waterfront land.
7.06.03  Infrastructure

Objectives

1. To set a minimum standard for public assets that are to be dedicated to Council.
2. To ensure discharge controls can be easily maintained.
3. To set minimum standard for stormwater devices and riparian corridors that are to remain in private ownership.
4. To ensure maintenance is undertaken for private assets.

Controls

The following controls apply to development that creates a Council (public) stormwater asset

1. A maintenance plan is submitted to Council as part of the development application. The maintenance plan addresses the issues described in Part 4c of the Stormwater and Water Efficiency for Development Technical Manual.
2. All weather access is provided to site discharge controls for maintenance purposes.
3. Site discharge controls designed in accordance with the Stormwater and Water Efficiency for Development Technical Manual.
4. Devices are designed to be easily accessible and avoid the need for fencing.
5. Hydrologic and hydraulic assessment modelling is required to demonstrate that the flooding and runoff regimes are being satisfied in accordance with Council’s requirements and the Stormwater and Water Efficiency for Development Technical Manual.
6. All filter media used in stormwater treatment measures is to meet the current specifications of the Bioretention Filter Media Guidelines produced by the Facility for Advancing Water Biofiltration or demonstrated equivalent and verified by a soil laboratory registered by the National Association of Testing Authorities.
7. Discharge controls are to be considered and incorporated into a development as early as possible to ensure a holistic, integrated and economical design.
8. Devices are designed in accordance with the Newcastle City Council Standard Drawings.
9. All new drainage works shall be inspected by CCTV following construction and the footage and associated report submitted to Council upon hand-over. This is to be in accordance with Council’s specifications provided in the consent conditions.

Note: The Newcastle City Council Standard drawings can be found on Council's website.

The following controls apply to development that creates a shared private asset such as stormwater devices, discharge controls and riparian corridors

10. A maintenance plan is to be submitted to Council as part of the development application.
11. All weather access tracks are to be provided to private assets for maintenance purposes.
12. Where fencing is installed it shall not preclude access for maintenance.

13. All stormwater devices shall be designed and constructed to meet the water quality and quantity targets of this DCP.

14. All stormwater devices and riparian corridors shall observe the requirements of the NSW Office of Water.
ORDINARY COUNCIL MEETING
28 JUNE 2016

CCL 28/06/16
AMENDMENT TO SECTION 7.06 STORMWATER - NEWCASTLE
DEVELOPMENT CONTROL PLAN 2012

Attachment B: draft Amended Section 9.00 Glossary
## Amendment history

<table>
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<th>Date Adopted by Council</th>
<th>Commencement Date</th>
<th>Amendment Type</th>
</tr>
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<td>4</td>
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</tr>
<tr>
<td>5</td>
<td>TBC</td>
<td>TBC</td>
<td>Amended</td>
</tr>
</tbody>
</table>

**Aboriginal cultural heritage** - means Aboriginal objects and declared Aboriginal places as defined under the *National Parks and Wildlife Act, 1974*.

**Note:** The *National Parks and Wildlife Act, 1974* defines *Aboriginal objects* as: any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

**Aboriginal place** means any place declared to be an Aboriginal place under Section 84.

**Above awning sign** - a sign on top of an awning.

**Absorption trench** - a trench excavated into the ground for the purpose of storing an initial volume of rainfall before that water seeps into the soil in which the trench is excavated.

**Act of prostitution** - has the meaning ascribed to it under Section 20 of the *Summary Offences Act, 1988*.

**The Act** - the *Environmental Planning and Assessment Act 1979*.

**Active solar energy systems** - systems which combine the sun’s energy with local climatic conditions to achieve thermal comfort inside buildings with the use of mechanical devices. An example is sub-floor heating which uses a pump to circulate hot water from a tank through the floor and back to solar collectors.

**Activity centres** - areas where commercial, retail and entertainment facilities are focused.

**Activity nodes** - see Activity centres.

**Accessible path of travel** - a continuous accessible path of travel is an uninterrupted part of travel to or within a building, providing access to all required facilities. It does not incorporate any step, stairway, turnstile, revolving door, escalator or other impediment which would prevent it from being safely negotiated by people with disabilities.

**Adaptable Housing** - refers to the means of designing a house/unit that enables easy and relatively cheap adaptation to make it comply fully with access standards (refer AS 4299 Adaptable Housing - Class C). This housing is designed in such a way that it can be easily modified in the future to meet changing needs of occupants.
**Adjoining occupiers** - persons who appear to the Council to occupy land abutting a development proposal.

**Adjoining owners** - persons who appear to the Council to own land abutting a development proposal.

**Advertised development** - has the same meaning as in the Act.

| Note: The term is defined as development, other than designated development, that is identified as advertised development by the regulations, an environmental planning instrument or a development control plan. |
| Advertised development includes any development for the purposes of a scheduled activity at any premises under the **Protection of the Environment Operations Act 1997** that is not designated development.

**Advertisement** - has the same meaning as in the Act.

| Note: The term is defined as a sign, notice, device or representation in the nature of an advertisement visible from any public place or public reserve or from any navigable water. |

**Advertising area** - the entire surface area of a sign face, including any margin, frame or embellishment which forms an integral part of the sign. In the case of an advertising structure with more than one sign face, the maximum surface area of the combined faces. The area of skeleton letter signs shall be the total area within which the letters and associated graphics are displayed and not the area of the individual letters added together.

**Advertising panel** - any other advertising structure which is unilluminated, including a hoarding or bulletin board.

**Advertising sign** - a sign, notice, device or representation in the nature of an advertisement, whether illuminated or not, which is visible from any public place or public reserve, or from any navigable waterway, and is not a road traffic signal or sign.

**Advertising structure** - has the same meaning as in the Act.

| Note: The term is defined as a structure used or to be used principally for the display of an advertisement. |

**Affordable housing** - has the same meaning as in the Act.

| Note: The term is defined as housing for very low income households, low income households or moderate income households, being such households as are prescribed by the regulations or as are provided for in an environmental planning instrument. |

**Allotment** - the legal parcel of land which has been created via subdivision and registered with the Land Property Information service, normally having a Lot Number and Deposited Plan (ie Torrens Title subdivision).

**Alter** - in relation to a heritage item, or to a building or work within a heritage conservation area, means:

(a) make structural changes to the outside of the heritage item, building or work; or

(b) make non-structural changes (other than maintenance) to the detail, fabric, finish or appearance of the outside of the heritage item, building or work.
**Amenity** - is the term used to describe the features, facilities or services that make for a comfortable and pleasant life. Amenity is not only enjoyed by residents in their homes and gardens but also in the street and public places.

**Annual exceedance probability (AEP)** - is the probability that a flood of a given or larger magnitude will occur within a period of one year. Its reciprocal is equivalent to average recurrence interval.

**Archaeological Assessment** - a report prepared by a qualified archaeologist that conforms to the current reporting requirements of the NSW Office of Environment & Heritage.

**Archaeological site** - (or site) a site identified in the Newcastle Archaeological Management Plan 1997; or the place or site of a relic or relics as defined in the *NSW Heritage Act 1977* as amended.

**Articulation zone** - building articulation is the treatment of a facade of a building which forms part of the public domain (ie the relation to streets, view corridors, open space, the harbour foreshore) and how it is emphasised architecturally. The facade of a building can be articulated using distinctive building treatments including:
- balconies
- verandahs and porches
- recessed terraces
- bay windows and French (or juliet) balconies
- external sun shading
- building facades can also be articulated using
- variations in setbacks
- fenestration
- materials and detailing
- entrances at ground level
- punctuated walls with recognisable patterns and features.

**Australian Height Datum (AHD)** - a standard datum for expressing vertical information.

**Average recurrence interval (ARI)** - the average period between the recurrence of a storm event of at least a given rainfall intensity. The ARI represents a statistical probability. For example, a 10 year ARI indicates an average of 10 events over 100 years. The ARI is not the period between actual events.

**Awning** - is a predominantly horizontal structure that projects over a footpath from the host building to provide weather protection for pedestrians.

**Awning sign** - attached to an awning (other than a fascia or return wall).

**Balcony** - is an open area, not being an enclosed room or area, attached to or integrated with and used for the exclusive enjoyment of the occupant or occupants of a dwelling.

**BASIX** - Building Sustainability Index (BASIX) is an online rating system used to ensure residential buildings are designed to use less potable water and be responsible for fewer greenhouse gas emissions by setting energy and water reduction targets for house and units.

**Basement garage** - is a garage normally used for the parking of vehicles with the floor constructed below the street level.

**Battle-axe lot** - means a lot that has access to a road by an access laneway.
**Broad Scale Development** - includes all development types other than dual occupancy and single dwelling houses

**Building** - has the same meaning as in the Act.

Note: The term is defined to include part of a building, and also includes any structure or part of a structure (including any temporary structure or part of a temporary structure), but does not include a manufactured home, moveable dwelling or associated structure or part of a manufactured home, moveable dwelling or associated structure.

**Building Code of Australia** - has the same meaning as in the Act.

Note: The term is defined as the document, published by or on behalf of the Australian Building Codes Board, that is prescribed for purposes of this definition by the regulations, together with:

- such amendments made by the Board
- such variations approved by the Board in relation to New South Wales, as are prescribed by the regulations.

**Building envelope** - the three dimensional space that limits the extent of a building on an allotment. The building envelope is defined by building height and front, side and rear boundary setbacks. Refer to definitions for building height and setback for inclusions and exclusions.

**Building envelope (for heritage purposes)** - the volume of the building on the site of the heritage item.

**Building elements (for heritage purposes)** - doors, windows, gutters, downpipes, chimneys, walls, shopfronts, roofs, and stairs.

**Building height (or height of building)** - has the same meaning as in Newcastle Local Environmental Plan 2012.

Note: The term is defined as the vertical distance between ground level (existing) and the highest point of the building, including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.

**Building line or setback** - has the same meaning as in Newcastle Local Environmental Plan 2012.

Note: The term is defined as the horizontal distance between the property boundary or other stated boundary (measured at 90 degrees from the boundary) and:

- a building wall
- the outside face of any balcony, deck or the like
- the supporting posts of a carport or verandah roof

whichever distance is the shortest.

**Bulk** - the total effect of the arrangement, volume, size and shape of the building.

**Bush fire prone land** - has the same meaning as in the Act.

Note: The term is defined, in relation to an area, as land recorded for the time being as bush fire prone land on a map for the area certified as referred to in section 146 (2) of the Act.

**Bush fire hazard reduction work** - has the same meaning as in the *Rural Fires Act 1997*.

Note: Bush fire hazard reduction work means:

- the establishment or maintenance of fire breaks on land, and
**Glossary**

(b) the controlled application of appropriate fire regimes or other means for the reduction or modification of available fuels within a predetermined area to mitigate against the spread of a bush fire, but does not include construction of a track, trail or road.

**Car pooling** - car pooling (also known as ride-sharing or lift-sharing) is a system by which participants coordinate their trips (for example, trips to work) so that they can travel in a single car, thereby reducing the volume of traffic on the roads and associated impacts.

**Car sharing** - car sharing allows a member of the car sharing scheme (such as an individual or a business) to access a fleet of shared vehicles, as needed, paying a usage fee each time. Characteristics of a typical car sharing scheme include a provider with a centralised system for booking and billing, clients (individuals/organisations), a fleet of vehicles, and parking spaces at key locations within a defined catchment area.

**Carriageway** - that portion of a road or bridge devoted to the use of vehicles, inclusive of shoulders and auxiliary lanes.

**Catchment** - is the entire area of land drained by a river and its tributaries.

**Category 1 remediation work** - remediation work that needs development consent under State Environmental Planning Policy No. 55 - Remediation of Land.

**Category 2 remediation work** - remediation work that does not need development consent under State Environmental Planning Policy No. 55 - Remediation of Land.

**Category 1 vegetation** - appears as orange on the map and represents forests, woodlands, heathlands, pine plantations and wetlands. Land within 100m of this category (indicated by the red buffer on the map) is also captured by the Bush Fire Prone Land Map due to the likelihood of bush fire attack.

**Category 2 vegetation** - appears as yellow on the map and represents grasslands, scrublands, rainforests, open woodlands and mallee. The land within 30m of Category 2 vegetation (ie as indicated by the red buffer on the map) is also captured by the Bush Fire Prone Land Map due to the likelihood of bush fire attack.

**Certifying authority** - has the same meaning as in the Act.

**Certifying authority** - has the same meaning as in the Act.

**Character** - the combination of the individual characteristics or qualities of a neighbourhood, precinct or street.

**Circumference breast height** - the girth of the supporting stem of a tree at a height of 1.4m above ground level (existing) measured at the trunk centre, and so as to contain the outermost projection of any flanges or buttresses.

**City Centre** - area defined on the Newcastle City Centre map of the Newcastle Local Environmental Plan 2012

**Classified advertisement** - a notice appearing in the public notices section of a newspaper.

**Community land** - has the same meaning as in the Local Government Act 1993.
**Community title subdivision** - form of title created under the *Community Land Development Act 1989* and the *Community Land Management Act 1989*. Community title provides individual ownership of lots (with buildings and structures erected on the lots as in conventional subdivision) and a share in the association property. Association property is a lot in the scheme on which community facilities may be erected. Association property can include land for roads and driveways, swimming pools and other common facilities, common open space areas and common infrastructure facilities, such as water treatment plants and the like.

**Compliance certificate** - has the same meaning as in the *Act*.

Note: Refer to section 109C (1) (a) of the *Act*.

**Complying development** - has the same meaning as in the *Act*.

Note: Development for which provision is made as referred to in section 76A (5) of the *Act*.

**Complying development certificate** - means a complying development certificate referred to in section 85 of the *Act*.

**Conventional or Torrens title subdivision** - the traditional or 'single lot' form of subdivision, common in many residential estates. The Torrens title system is based on a plan of survey, or a plan compiled from survey, which defines the boundaries of a parcel of land at the date upon which it was registered.

**Consent authority** - has the same meaning as in the *Act*.

Note: The term is defined in relation to a development application or an application for a complying development certificate, means:

(a) the council having the function to determine the application, or

(b) if a provision of this *Act*, the regulations or an environmental planning instrument specifies a Minister, the Planning Assessment Commission, a joint regional planning panel or public authority (other than a council) as having the function to determine the application—that Minister, Commission, panel or authority, as the case may be.

**Conservation** (in relation to heritage) - all of the processes of conserving a place to retain heritage significance.


**Construction certificate** - means a certificate referred to in section 109C (1) (b) of the *Act*.

**Contaminated land** - land in, on or under which any substance is present at a concentration above that naturally present in, on or under the land and that poses, or is likely to pose, an immediate or long term risk to human health or the environment.


**Contamination** - concentration of substances above that which should be naturally present, and which poses, or is likely to pose, an immediate or long-term risk to human health or the environment.
**Contaminated wastes** - includes any substance or item that has become or may have become contaminated by body fluids (refers to Sex Services Establishments section).

**Contributions plans** - plans specify the circumstances in which the Council may impose developer contributions (generally known as ‘Section 94/94A contributions’). These plans may apply to the whole of the Council area, to a particular district or to a specific site.

**Contributory building** - a building that is associated with a significant historical period, substantially intact; and a building associated with a significant historical period, altered yet readily identifiable.

**Contributory item** - a feature, including a building, work, relic, tree or place within a conservation area which in the opinion of the Council has cultural significance and whose loss would be detrimental to the overall heritage significance of the conservation area.

**Council** - means The City of Newcastle

**Covenant** - a restriction on the use of land recorded on the property title and binding upon successive landowners. Covenants may be ‘negative’ (imposing restrictions) or ‘positive’ (imposing positive obligations). Covenants are imposed under the *Conveyancing Act 1919*.

**Curtilage** - the area of land surrounding a heritage item that is essential in retaining the heritage significance of the item.

**Deep soil zone** - an area of natural ground with relatively natural soil profiles within a development. Deep soil zones should be designed in such a way that is free of conflicts with infrastructure, services and drainage pipes.

**Designated development** - has the meaning given by Section 77A of the *Act*.

**Detailed investigation** - an investigation to define the extent and degree of contamination, to assess potential risk posed by contaminants to human health and the environment, and to obtain sufficient information for the development of a remedial action plan if required. Reporting requirements for a detailed investigation are as outlined in the publication Guidelines for Consultants Reporting on Contaminated Sites (*EPA, 1997*).

**Development** - has the same meaning as in the *Act*.

**Development application** - has the same meaning as in the *Act*.

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**Note:** The term is defined as:

(a) the use of land, and

(b) the subdivision of land, and

(c) the erection of a building, and

(d) the carrying out of a work, and

(e) the demolition of a building or work, and

(f) any other act, matter or thing referred to in section 26 that is controlled by an environmental planning instrument, but does not include any development of a class or description prescribed by the regulations for the purposes of this definition.

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**Note:** The term is defined as an application for consent under Part 4 to carry out development but does not include an application for a complying development certificate.
Development control plan (or DCP) - has the same meaning as in the Act.  

Note: The term is defined as a development control plan made, or taken to have been made, under Division 6 of Part 3 and in force.

Development footprint – the area of ground to be covered by structures, including pathways and driveways.

Development site - includes all area within which the development will occur and can extend across several lots or development blocks.

Discharge control - a device that stores water and limits the rate of discharge from the development site.

Dispersion trench - a 600mm x 600mm trench, 1m long for every 25m² of catchment draining to it (regardless of whether or not a discharge control is used) excavated into the ground for the purpose of dispersing overflows and discharges from stormwater systems. Dispersion trenches are only for single dwellings that drain to the rear.

Drainage - means any activity that intentionally alters the hydrological regime of any locality by facilitating the removal of surface or ground water. It may include the construction, deepening, extending, opening, installation or laying of any canal, drain or pipe, either on the land or in such a manner as to encourage drainage of adjoining land.

Easement - a legal right held by an owner of land or public authority in respect of another land parcel. Easements are commonly created to enable access across other properties, such as for drainage, pipelines, footways, etc.

Ecologically sustainable development - has the same meaning it has in Section 6 (2) of the Protection of the Environment Administration Act 1991.

Edges - define the boundaries of precincts and areas of special character.

Environmental amenity - the harmony of urban life provided through compatible land uses, sensitive design and the control of activities and processes that impinge on the wellbeing of reasonable people.

Environmental impact statement - a document describing the likely impacts of proposed development on the environment, and prepared in accordance with clauses 71-76 of the Environmental Planning and Assessment Regulation 2000. Environmental impact statements are required to be prepared in the following instances:
- development applications relating to 'designated development';
- activities subject to Part 5 of the Environmental Planning and Assessment Act 1979 that are likely to significantly affect the environment.

Environmental planning instrument - has the same meaning as in the Act.  

Note: The definition is defined as an environmental planning instrument (including a SEPP or LEP but not including a DCP) made, or taken to have been made, under Part 3 and in force.

Erosion and Sediment Control Plan - a plan lodged with a development application that illustrates how erosion and sediment control will be managed during the construction phase of the development.

Excavation Permit - a permit provided under section 140 or section 60 of the NSW Heritage Act 1977.
**Exempt development** - is development for which provision is made as referred to in Section 76 (2) of the Act.

**Exemption Notification Form S57(2)** - a permit provided under Section 57 of the *NSW Heritage Act 1977*.

**Exhibition period** - the period during which a person may inspect exhibited documents relating to a notifiable matter.

**Fabric** - the physical material of the place (including the building, site or area).

**Facade** - the exterior walls of a building.

**Facadeism** - the practice of demolition of a building, retaining only the facade.

**Fascia Sign** - attached to the fascia or return end of an awning.

**Fenestration** - arrangement of windows and other patterns on a building.

**Fill** - means the depositing of soil, rock or other similar extractive material obtained from the same or another site, but does not include:

(a) the depositing of topsoil or feature rock imported to the site that is intended for use in garden landscaping, turf or garden bed establishment or top dressing of lawns and that does not significantly alter the shape, natural form or drainage of the land, or

(b) the use of land as a waste disposal facility.

**Fin Sign** - erected on or above the canopy of a building.

**Fine Grain** - a variety of different land uses in proximity to one another or a series of narrow building elements as opposed to a large consolidated land use or a broad, unbroken building form.

**Flashing sign** - illuminated (as to any part of the advertising area) at frequent intervals by an internal source of artificial light and whether or not included in any other class of advertising structure.

**Floodlit sign Illuminated** - (as to any part of the advertising area) by an external source of artificial light and whether or not included in any other class of advertising structure.

**Flood fringe areas** - the remaining area of the Hunter River Floodplain not included in flood storage areas and floodways. Flood fringe areas can usually be developed without reference to how that development will affect the flood behaviour either upstream or downstream.

**Flood information certificate** - is a certificate issued by Council that provides information about the likelihood, extent or other characteristics of flooding known to affect a specified parcel of land.

**Flooded area** - is relatively high stream flow which overtops the natural or artificial banks in any part of a stream, river estuary, lake or dam, and/or local overland flooding associated with major drainage, and/or coastal inundation resulting from super-elevated sea levels and/or waves, excluding tsunami. Accordingly, flooding may occur due to a variety of reasons, either separately or in combination including:

- **river flooding** - caused by a river or stream overtopping its banks onto the surrounding floodplain
- urban flooding - caused by urban stormwater flows during an intense rainfall event, such as surface flows, surcharge from piped drainage systems or overflow from man-made stormwater channels.
- coastal inundation - caused by sea water inundation due to king tides, storm surge, barometric effects, shoreline recession, subsidence, the enhanced greenhouse effect or other causes.

**Flood liable land** - is synonymous with flood prone land (ie) land susceptible to flooding by the PMF event on the basis of flood information held by Council. Note that the term flood liable land covers the whole floodplain, not just that part below the FPL (see flood planning area).

**Floodplain** - an area of land along the course of a river that is subject to periodic inundation due to the river overtopping its bank. It is commonly delineated by the area that would be flooded by an event with a given average recurrence interval.

**Flood planning area** - the area of land below the FPL. Note that development controls that mainly relate to risk to property apply to the flood planning area, but other development controls mainly relating to risk to life and floodways and flood storages may apply to the remainder of flood liable (prone) land.

**Flood planning level (FPL)** - is the level of the planning flood plus an additional freeboard as advocated in the NSW Floodplain Development Manual. For purposes of this element, the planning flood is the 1% Annual Exceedance Flood, and the freeboard is generally 500mm.

**Flood prone land** - is land that, on the basis of flood information held by Council, is estimated to be inundated by the probable maximum flood.

**Flood refuge** - is an area free of flooding. It can be either higher ground or it could be in the form of an area of the building, either constructed specifically for the purpose or as an intrinsic part of the building.

**Flood storage area** - is an area where flood water accumulates and the displacement of that floodwater will cause a significant redistribution of floodwaters, or a significant increase in flood levels, or a significant increase in flood frequency. Flood storage areas are often aligned with floodplains and usually characterised by deep and slow moving floodwater.

**Floodway** - those areas of the floodplain where a significant discharge of water flows during floods; often aligned with obvious naturally defined channels. Floodways are areas which, even if only partially blocked, would cause a significant redistribution of flood flow or increase in flood levels, which may in turn adversely affect other areas.

**Floorplate** - total enclosed area of a floor measured from the outside of the external walls, inclusive of all internal walls, service areas, stores, ducts, circulation and the like.

**Footpath** - the paved area in a footway.

**Footway** - that part of the road reserve between the carriageway and the road reserve boundary, reserved for the movement of pedestrians and legal cyclists. It may also accommodate utilities, footpaths, stormwater flows, street lighting poles and plantings.

**Form** - the overall shape and parts of the building.

**Freeboard** - is a margin applied to the estimation of flood levels to compensate for factors such as wave action, localised hydraulic behaviour, climatic change and modelling confidence.
**Frontage** - the street alignment at the front of a lot and, in the case of a lot that abuts two or more streets, the boundary of which, when chosen, would enable the lot to comply with this document.

**Formed void absorption trench** - an absorption trench formed by installing a series of void formers, usually plastic or fibreglass that maximise the storage volume of the absorption trench while supporting the surface of the trench such that it can be treated and used similarly to the surrounding surface.

**Freeboard** - is a margin applied to the estimation of flood levels to compensate for factors such as wave action, localised hydraulic behaviour, climatic change and modelling confidence.

**Gateways** - areas containing structures and/or fauna, which provide a sense of entry to the city through access and visual impact.

**Geodiversity** - soils and geology. Management of geodiversity is essential to sustain biodiversity and human ecology.

**Gravel filled absorption trench** - an absorption trench filled with gravel so as to achieve a minimum 30% void ratio and allowing the surface of the trench to be treated and used similarly to the surrounding surface.

**Greenfield estate** - land that has been subdivided with consideration of the controls listed in this DCP for greenfield sites.

**Greenfield site** - undeveloped land that has been identified, through land use zoning, as having potential for future urban, commercial or industrial development. It is generally found on the fringes of existing developed areas and may contain a large amount of existing vegetation.

**Green Travel Plan** - a Green Travel Plan is a package of initiatives aimed at reducing car travel, particularly single occupant car trips. A Green Travel Plan encourages greater use of public transport, walking and cycling by residents, employees and visitors.

**Gross Display Area (GDA)** - the sum of the area intended to be used for the display or showing of product, including all access ways within these areas and any storage areas where the products can be viewed by the public/customers.

**Gross floor area** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

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**Note:** The definition is defined by the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4m above the floor, and includes:

- the area of a mezzanine, and
- habitable rooms in a basement or an attic, and
- any shop, auditorium, cinema, and the like, in a basement or attic, but excludes:
- any area for common vertical circulation, such as lifts and stairs, and
- any basement:
  - storage, and
  - vehicular access, loading areas, garbage and services, and
- plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and
- car parking to meet any requirements of the consent authority (including access to that car parking), and
- any space used for the loading or unloading of goods (including access to it), and
- terraces and balconies with outer walls less than 1.4m high, and
- voids above a floor at the level of a storey or storey above.
Gross leasable floor area (GLFA) - GLFA is the sum of the area of each floor of a building where the area of each floor is taken to be the area within the internal faces of the walls, excluding stairs, amenities, lifts, corridors and other public areas but including stock storage areas. Gross leasable floor area relates to the sum of the commercially leasable floor area and is also often referred to as Net Floor Area.

Ground level (existing) - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as the existing level of a site at any point.

Ground level (finished) - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as any point on a site, the ground surface after completion of any earthworks (excluding any excavation for a basement, footings or the like) for which consent has been granted or that is exempt development.

Ground level (mean) - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as any site on which a building is situated or proposed, one half of the sum of the highest and lowest levels at ground level (finished) of the outer surface of the external walls of the building.

Habitable room - a room used for normal domestic activities including a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, playroom and sunroom. A habitable room excludes a bathroom, laundry, water closet, food-storage pantry, walk-in wardrobe, corridor, hallway, lobby, photographic darkroom, clothes-drying room, and other spaces of a specialised nature occupied neither frequently nor for extended periods. In commercial buildings a habitable room means any room used for normal commercial activities, including offices, kitchens, lunch rooms, common rooms and any other rooms occupied frequently.

Heritage Act 1977 - an Act of the NSW Parliament providing for conservation orders and other controls over items having heritage significance. The Act is administered by the Heritage Council of NSW.

Heritage significance - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note. The definition is defined as historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value.

Heritage conservation area - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note. The definition is defined as an area of land of heritage significance:
(a) shown on the Heritage Map as a heritage conservation area, and
(b) the location and nature of which is described in Schedule 5, and includes any heritage items situated on or within that area.
Heritage conservation management plan - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as a document prepared in accordance with guidelines prepared by the Department of Planning that documents the heritage significance of an item, place or heritage conservation area and identifies conservation policies and management mechanisms that are appropriate to enable that significance to be retained.

Heritage impact statement - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note. The definition is defined as a document consisting of:
(a) a statement demonstrating the heritage significance of a heritage item or heritage conservation area, and
(b) an assessment of the impact that proposed development will have on that significance, and
(c) proposals for measures to minimise that impact.

Heritage item - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as a building, work, place, relic, tree, object or archaeological site the location and nature of which is described in Schedule 5.

Heritage buildings, sites and elements - heritage items (including landscape and archaeological items, and building elements), buildings, works, relics, trees and sites within heritage conservation areas and heritage streetscapes.

Mean high water mark - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as the position where the plane of the mean high water level of all ordinary local high tides intersects the foreshore, being 1.44m above the zero of Fort Denison Tide Gauge and 0.515m Australian Height Datum.

Historic parking deficiency - the historic parking deficiency is determined by calculating the number of parking spaces required under the provisions of this DCP for an existing building or use and subtracting the number of spaces currently provided for that building or use.

Hydraulic behaviour threshold - is a set of circumstances (that may or may not be present at some locations at some time in any particular sized flood) that constitutes a particular level of hydraulic impact.

Host building - the existing building on the land that is the subject of an alteration or addition.

Human scale streetscape - means a streetscape that is scaled for the pedestrian.

Impervious area – an area of impermeable surface (excluding pools and porous paving).

Impermeable surface - a surface that does not allow rainwater to infiltrate to the soil, such as buildings (roofs), roads, parking areas and courtyards.

Infill development - new urban development within existing developed areas. Often involves a more intensive use of the site. Infill development may encompass housing, retail, business, education, community service, and industrial activities.

In the vicinity - the surrounding context, environment or setting of a heritage item.
Infiltration - the practice of discharging drainage water to the ground.

Infiltration trench - a trench excavated into the soil for the purpose of dispersing all stormwater up to the 5% AEP event. Infiltration trenches will vary in volume depending on the permeability of the parent soil and should be designed by a qualified Civil Engineer based on soil permeability testing.

Initial evaluation - an assessment of readily available factual information to determine whether contamination is an issue requiring further investigation prior to:
- the preparation of a local environmental plan, development control plan or plan of management for community land; or
- the determination of a development application or Council activity assessed under Part 5 of the Act

that would have the effect of authorising a proposed change of use of land or the carrying out of earthworks.

Intactness - the degree of original elements, or elements from a significant period of development, which demonstrate the heritage significance of the building or group of buildings.

Integrated development - has the meaning given by section 91 of the Act.

Internal fabric - the interior fittings such as fireplaces, ceilings, joinery, walls, lifts, galleries, stairs, hardware and moveable items.

Interpretation Plan - a plan that presents the significant archaeological heritage of a site or property that is the subject of a development application.

Intrusive building - a building that has a negative effect on the character or heritage significance of a heritage conservation area.

Investigation area - land declared to be an investigation area by a declaration in force under Division 2 of Part 3 of the Contaminated Land Management Act 1997.

Investigation order - an order issued by the Environment Protection Authority under Division 2 of Part 3 of the Contaminated Land Management Act 1997 to investigate contamination within an investigation area.

Landmarks - prominent or distinguishing buildings or features by which people orient themselves and identify places within the City.

Landscaped area - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The Landscape Area is defined as a part of the site used for growing plants, grasses and trees, is open to the sky but does not include any building, structure or hard paved area. The landscaped area should be designed in such a way that is free of conflicts with infrastructure, services and drainage pipes.

Under this DCP paving wider than 1m, impervious or otherwise, will not be considered as landscaping. Structures include, but are not limited to, such features as air conditioning systems, awnings, cubby houses, decks, fixed clotheslines, garden sheds, hot water systems, LPG storage tanks, patios, swimming pools, tennis courts, verandas, water tanks (eg. rainwater) and the like.

1 The first metre (ie. 1m) of a landscape area which falls under an awning, overhang, under croft (or similar) may be included within the landscape area calculations where it forms part of continuous landscape area 3m wide or greater, with the remaining larger portion being open to the sky and the development is supported by a comprehensive landscape plan (ie. '2m plus 1m') (see Figure 1-Landscape area and awnings).
**Figure 1: Landscape area and awnings**

**Lane** - a publicly accessible narrow street that is open to the sky and which provides permanent pedestrian and/or vehicle connections through the city fabric at all hours.

**Large Scale Development** - development sites that are larger than 5,000m².

**Local Environmental Plan** - is a type of environmental planning instrument under Part 3 of the *Environmental Planning and Assessment Act 1979*. Local environmental plans regulate development having local environmental significance. They are prepared by the Council and approved by the Minister for Planning.

**Living area** - of a dwelling includes habitable rooms frequently used for general recreation, entertainment and dining and includes living rooms, dining, family, lounge, rumpus room and the like but excludes non-habitable rooms, bedrooms, study, kitchen and other areas that are less frequently used.

**Lot** - refer to ‘Allotment’.

**Major alteration and addition** - any alteration and addition where the area of the building which is the subject of the application, equals or exceeds 40% of the floor area of the existing building when measured to the outside surface of the existing walls. This includes areas of the existing building such as kitchens and bathrooms when these are included in the works within the application.

**Major development** - major development means residential development of any kind containing more than 50 dwellings; any new hospital, or additions to an existing hospital, where the new building or addition contains more than 100 beds; any new educational or training facility, or additions to an existing facility, that will cater for more than 50 students; any other form or type of development where the gross floor area will be more than 2000m² and/or involve more than 50 employees.
**Major drainage system** - the part of the public drainage system in an urban area that carries relatively large flows. It consists of the system of streams, floodways, stormwater channels, retarding basins and street pavements. It is generally designed to protect people and indoor property from the effects of an extreme flood with an annual exceedance probability (AEP) of 1%.

**Massing** - the size and volume of a building.

**Microgram** - unit of mass equal to 1 millionth of a gram or 1 thousandth of a milligram.

**Micron** - unit of length equal to 1 millionth of a metre or 1 thousandth of a millimetre.

**Milligram** - unit of mass equal to 1 thousandth of a gram.

**Minor drainage system** - the part of the public drainage system in an urban area that carries relatively minor flows. It consists of the system of kerbs, gutters, roadside channels, swales, sumps and underground pipes. It is generally designed to control ‘nuisance flows’ which occur on a day-to-day basis typically with an annual exceedance probability (AEP) of 10%.

**Mine subsidence district** - means a mine subsidence district proclaimed under section 15 of the *Mine Subsidence Compensation Act 1961*.

**Manufactured home** - has the same meaning as in the *Local Government Act 1993*.

**Movement network** - refers to access ways for pedestrian, cycles and vehicles.

**Moving sign** - Attached to a building and capable (as to any part of the advertisement or advertising structure) of movement by any source of power (whether or not included in any other class of advertising structure).

**NABERS** - NABERS (the National Australian Built Environment Rating System) is a performance-based rating system for existing buildings. NABERS rates a commercial office, hotel or residential building on the basis of its measured operational impacts on the environment.

**NatHERS or equivalent** - a computer simulation tool for rating the thermal performance of houses across Australia. The Energy Management Task Force is responsible for delivering a NatHERS compliance protocol. Any software or paper checklist which passes under this protocol is deemed ‘NatHERS or equivalent’.

**Natural Light** – daylight received into a building

**Nominated integrated development** - integrated development that fits into 1 of 3 categories. The first category is if it requires approval by the Heritage Council under the *Heritage Act 1977*. The second category is if it requires an environmental protection licence from the Environment Protection Authority under the *Protection of the Environment Operations Act 1997*. The third category is if it requires certain licences or approvals from the Department of Planning and Infrastructure.

**Non-habitable room** - means spaces of specialised nature not occupied frequently or for extended periods, including bathrooms, toilets, pantries, walk-in wardrobes, corridors, lobbies, photographic darkrooms and clothes drying rooms.

**North point** - in any discussion relating to orientation of a dwelling or part thereof, a reference to ‘north’ is a reference to true solar north and not magnetic, or compass north. True solar north varies from magnetic north depending upon the location. In Sydney, for example, magnetic north is approximately 12° east of true solar north.
Notice of completion - a notice, required under State Environmental Planning Policy No.55, that is given to the consent authority when remediation work has been completed.

Notification plan - a plan showing:
- the height and external configuration of a proposed building in relation to the site and adjoining buildings; or
- in the case of a development proposal that does not involve the erection of a building, the general arrangement of the proposed development in relation to the site and adjoining buildings.

Noxious Weeds - trees and plant species declared as ‘noxious weeds’ within the Newcastle local government area, under the NSW Noxious Weeds Act 1993.

Objectives - statements describing desired outcomes.

Occupation certificate - means a certificate referred to in section 109C (1) (c) of the Act.

Occupiable rooms (from flooding perspective) - rooms of buildings where people may be present in the normal use of the building.

Occ sipier - has the same meaning as in the Act.

Note: The definition is defined as a tenant or other lawful occupant of premises, not being the owner.

On-site stormwater detention (OSD) - a stormwater management practice that limits the rate of discharge from a site using outlet restriction devices. Stormwater flows in excess of the capacity of the outflow control device is temporarily stored either in tanks or surface depressions until the storm event recedes. Stormwater flows are therefore released at a controlled rate into the public drainage system.

On-site stormwater retention - stormwater management practices where on-site stormwater runoff is actually captured and retained within the site for re-use or infiltration and is not released to the downstream drainage system.

Open space - is defined as an area external to a building (including an area of land, terrace, balcony or deck) that is used for outdoor purposes.

Operational land - has the same meaning as in the Local Government Act 1993.

Organic material - any matter that is comprised in part of carbon. It includes, but is not limited to garden waste such as grass clippings and leaves, animal wastes such as faeces, and any foodstuffs or their wastes.

Other advertised development - advertised development that is not nominated integrated development.

Other occupiers - persons who appear to the Council to occupy land, but who are not adjoining occupiers. This includes persons who occupy land directly across a public road from the site of a development proposal.

Other owners - persons who appear to the Council to own land, but who are not adjoining owners. This includes persons who own land directly across a public road from the site of a development proposal.

Overflow disposal - the disposal of flows that occur when the capacity of the site discharge controls is reached and such overflow.
Owner - has the same meaning as in the Local Government Act 1993 and includes, in Division 2A of Part 6, in relation to a building, the owner of the building or the owner of the land on which the building is erected.

Owner-builder - has the same meaning as in the Home Building Act 1989.

Parapet height - the parapet level is the horizontal plane in which at least 2/3 of the length of the top of the facade of the building adjacent to the street is situated.

Passive solar energy systems - systems which combine the sun's energy with local climate characteristics, to achieve thermal comfort inside buildings without the use of mechanical devices. In a passive system, the building itself is a solar collector, as well as a heat storage and transfer medium.

Pedestrian amenity - the capacity of walking routes, usually public footpaths on streets, to be comfortable along their entire lengths, with frontage development that is inviting and interesting to pedestrians.

Permeable surface - a surface treatment that allows rain water to infiltrate to the soil, such as grass, landscaping, gravel, porous pavement and coarse sand.

Permissible site discharge (PSD) - the maximum rate at which stormwater is permitted to be discharged from a given site area.

Plan depth - means the width of a building measured from the inside face of wall to inside face of wall or from the inside face of glass to inside face of glass. Plan depth is measured along the hortest axis, ie from front to back or side to side depending on the shape of building.

Planning flood - is the flood event from which the flood planning level is derived. It is expressed in terms of the probability of the event being exceeded, usually within any given year (see annual exceedance probability).

Pole or pylon sign - erected on a pole or pylon independent of any building or structure
Porte cochere - a covered drive-through porch, often used in hotel development, large enough to accommodate vehicles such as tourist coaches.

Porous Paving - paving that maintains a high degree of permeability to allow rainfall to infiltrate the substrate and not produce runoff in common rainfall events.

Potential archaeological site - a place or site suspected of having a relic or relics present.

Preliminary Archaeological Assessment - a report that investigates the archaeological potential and levels of significance of land prior to determination of development consent.

Principal area of private open space - is a 4m x 4m level area of private open space directly accessible from the main living area of the dwelling.

Principal area of private open space for single dwellings - is a 3m x 4m level area of private open space directly accessible from the main living area of the dwelling.

Note: Private open space areas are able to be covered. If private open space areas are enclosed on all sides with walls greater than 1.4m they will not be considered private open space but form part of the gross floor area.
**Private open space** – has the same meaning as in Newcastle Local Environmental Plan 2012. The term is defined as an area external to a building (including an area of land, terrace, balcony or deck) that is used for private outdoor purposes ancillary to the use of the building.

Note: Under this DCP the definition excludes from private open space features such as, but not limited to, awnings/overhangs¹, conditioning systems, cubby houses, fixed clotheslines, garden sheds, hot water systems, LPG storage tanks, swimming pools, tennis courts, water tanks (eg rainwater) and the like.

¹ The first metre (ie. 1m) of private open space area which falls under an awning, overhang, undercroft (or similar) can be included as private open space and where it forms part of continuous private open space area 4m** wide or greater, with the remaining larger portion being open to the sky and the development is supported by a comprehensive landscape plan (see Figure 2: Private open space and awnings).

** Private open space areas need to be at least 3m wide unobstructed and open to the sky. The first metre adjacent this 3m is allowed – ‘3m plus 1m’.

**Figure 2: Private open space and awnings**

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**Preliminary investigation** - an investigation to identify any past or present potentially contaminating activities, provide a preliminary assessment of any site contamination, and if required, provide a basis for a detailed investigation. Reporting requirements for a preliminary investigation are as outlined in the publication Guidelines for Consultants Reporting on Contaminated Sites (EPA, 1997).

**Principal certifying authority** - means a principal certifying authority appointed under section 109E of the Act.

**Principal contractor** - for building work means the person responsible for the overall co-ordination and control of the carrying out of the building work.

Note: If any residential building work is involved, the principal contractor must be the holder of a contractor licence under the Home Building Act 1989.
**Proponent** - a person or body seeking to carry out development on land.

**Probable maximum flood (PMF)** - is the largest flood that could conceivably occur at a particular location.

**Probable maximum flood level** - the flood level calculated to be the maximum which is likely to occur.

**Projecting wall sign** - Attached to the wall of a building (other than the transom of a doorway or display window) and projecting horizontally more than 0.3m from the wall.

**Property hazard** - is the ‘risk to property hazard category’ as a combination of hydraulic behaviour threshold and its effect on property. The risk to property hazards are based on the peak hydraulic behaviour thresholds \( (H_1-H_5) \) determined for the 1 in 100 annual chance flood.

**Public art** - (also known as town art or environmental art) is artwork that is commissioned to enrich the public domain.

**Publicly accessible space** - private or public land, which allows 24-hour access to the public in the form of walkways, outdoor dining or gardens.

**Public domain** - means the sum of public and private places and space including streets, roads, footways, plazas, promenades, squares, parks, beaches and reserves.

**Public drainage system** - a drainage system owned and operated by the Council or the Hunter Water Corporation.

**Published notice** - an advertisement placed in a newspaper.

**Public open space** - land used or intended for use for recreational purposes by the public and includes parks, public gardens, riverside reserves, pedestrian and cyclist access ways, playgrounds and sports grounds.

**Public place** - has the same meaning as in the *Local Government Act 1993*.

**Public reserve** - has the same meaning as in the Local Government Act 1993.

**Public tree** - any tree species growing on public land of any size.

**Public road** - has the same meaning as in the Roads Act 1993.

**Rainwater tank** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as a tank designed for the storage of rainwater gathered on the land on which the tank is situated.

**Recyclable** - any matter capable of being reprocessed into useable material or re-used providing facilities exist to do so.

**Reduced Level (RL)** - has the same meaning as in the Newcastle Local Environmental Plan 2012.

Note: The definition is defined as the height above the Australian Height Datum, being the datum surface approximating mean sea level that was adopted by the National Mapping Council of Australia in May 1971.

**Registered community group** - a community group which is registered with the Council under the Public Participation Section.
**Remedial action plan** - a plan which sets remediation goals and documents the process by which it is proposed to remediate a site. Reporting requirements for a remedial action plan are as outlined in the publication Guidelines for Consultants Reporting on Contaminated Sites (EPA, 1997).

**Remediation** - works carried out for the purpose of:
- removing, dispersing, destroying, reducing, mitigating or containing the contamination of any land; or
- eliminating or reducing any hazard arising from the contaminated land (including by preventing the entry of persons or animals on the land).

**Remediation order** - a remediation order made by the Environment Protection Authority and in force under Part 3 of the *Contaminated Land Management Act 1997*.

**Remediation site** - a site that is land declared to be a remediation site by a declaration in force under Division 3 of Part 3 of the *Contaminated Land Management Act 1997*.

**Regulation** - means a regulation made under the *Act*.

**Relic** - the same as in the *NSW Heritage Act 1977* (as amended).

**Remediation site** - a site that is land declared to be a remediation site by a declaration in force under Division 3 of Part 3 of the *Contaminated Land Management Act 1997*.

**Research Design** - refers to the set of research questions and methodology developed for a site within a wider research framework.

**Restoration** - means returning the existing fabric of a building or work to a known earlier state by removing accretions or by reassembling existing components without the introduction of new materials.

**Retainable tree** - a tree that has been subjected to and passed the relevant assessment tests noted in Section 4 of the Technical Manual.

Note: that these tests are to be undertaken by a suitably qualified arborist.

**Retention tank** - a water tank, whether above ground or below ground designed to retard the discharge of runoff from an impervious surface to a rate not harmful to the environment.

**Riparian Zone** - is an area of river or creek bank that supports, or has at one time supported a unique ecosystem pertaining to the river microenvironment. Generally, a width of 40m is considered to be the minimum viable riparian zone.

**Road** - means a public road or a private road within the meaning of the *Roads Act 1993*, and includes a classified road.

**Road/street reserve** - the land incorporating the full width from property line to opposite property line.

**Roof sign** - erected on or above the roof or parapet of a building

**Roof terrace** - the flat roof of a lower level building, which is both directly accessible for the exclusive use from the dwelling it adjoins and also open to the sky except for a pergola or similar sun control devices.
Routes - roads or paths along which major movements occur and which provide the framework within which individual project sites are accessed.

Runoff - the portion of rainfall that flows across the ground surface as water.

Scale - the size of a building in relation to its surroundings.

Section 94 Developer Contributions - Section 94 of the Environmental Planning and Assessment Act 1979 is the principal legislation enabling Council to levy contributions for amenities and services. Contributions are imposed by way of a condition of consent and can be satisfied by either:
(a) dedication of land
(b) monetary contribution
(c) material public benefit
(d) combination of the above.

Setting - the context within which a building or structure is situated in relation to the surroundings. Components that may be part of a setting includes nearby buildings, roof scapes, chimneys, valleys, ridges, view corridors, trees and parks, view corridors, vantage points and landmarks.

Significance assessment - an assessment of the heritage significance of predicted or known archaeological features.

Single Dwelling Houses - a dwelling house on a block of land with no other dwellings.

Site audit - an independent review by a site auditor:
(a) that relates to investigation or remediation carried out in respect of the actual or possible contamination of land; and
(b) that is conducted for the purpose of determining any 1 or more of the following matters:
   ▪ the nature and extent of any contamination of the land
   ▪ the nature and extent of the investigation or remediation
   ▪ what investigation or remediation remains necessary before the land is suitable for any specified use or range of uses.

Site audits are conducted in accordance with the Guidelines for the NSW Site Auditor Scheme (EPA, 1998).

Site auditor - a person accredited under the Contaminated Land Management Act 1997 as a site auditor.

Site audit statement - a written statement by a site auditor that summarises the findings of a site audit. Site audit statements are prepared according to a standardised format prescribed in the Contaminated Land Management Regulation 1998.

Site drainage line - a piped drain that conveys stormwater from a development site to the public drainage system.

Site History - is a land use history of a site which identifies activities or land uses which may have contaminated the site, establishes the geographical location of particular processes within the site, and determines the approximate time periods over which these activities took place.
**Site investigation process** - the process of investigating land that is or may be contaminated. The purpose of the site investigation is to provide the Council with sufficient information for it to make an informed decision as to whether it should authorise a proposed change of use of land. A site investigation may include up to 4 stages:

- stage 1-preliminary investigation;
- stage 2-detailed investigation;
- stage 3-remedial action plan;
- stage 4-validation and site monitoring.

**Site investigation report** - includes one or more of the following: a preliminary investigation report, detailed investigation report, remedial action plan and validation and site monitoring report.

**Small Scale Development** - development sites that are smaller than 5,000m².

**Social impact** - changes that occur in:

- people’s way of life (how they live, work, play and interact with one another on a day-to-day basis)
- their culture (shared beliefs, customs and values), and
- their community (its cohesion, stability, character, services and facilities).

**Soil and Water Management Plan** - a plan lodged with a development application that illustrates how stormwater, runoff and soils will be managed on the site. The plan should demonstrate the feasibility of both the proposed stormwater management system, and the proposed erosion, sediment and water quality control measures. The plan should be supported by preliminary hydrological calculations and other information in the accompanying Statement of Environmental Effects.

**Solar collectors** - any building treatment or appliance specifically designed to capture or collect the sun's rays for the benefit of the occupants eg. windows including clerestory (or highlight) windows, solar hot water collector panels, photovoltaic (solar-electricity) cells/panels.

**Spa pool** - has the same meaning as in the *Swimming Pools Act 1992*.

Note: The term is defined to include any excavation, structure or vessel in the nature of a spa pool, flotation tank, tub or the like.

**Statutory requirement** - a requirement under the provisions of an Act, Regulation, State Environmental Planning Policy, Regional Environmental Plan, Local Environmental Plan or other statutory instrument.

**Street tree** – trees identified by Council within the Street Tree Master Plan. These have been surveyed and mapped by Council.

**Street tree vacancy site** – sites identified by Council for future street tree planting. The sites have been identified from analysis of the Local Government Area based on criteria in the Tree Asset Management System (TAMS). The information on locations of street tree vacancy sites is available on request from Council.

**Stormwater** - the runoff from rainfall events.

**Stormwater harvesting** - the collection, storage and use of stormwater for domestic, industrial, irrigation or other purposes.
Stormwater Management Plan - a plan lodged with a development application that details the proposed use of structural infrastructure and treatment techniques to both improve stormwater quality and mitigate excessive flows.

Stormwater surface flowpath - land that carries concentrated surface flow during a rainfall event, the width, shape and gradient of which is designed to cater for the flow produced by a 1% annual exceedance probability (AEP) rainfall event. Includes a flowpath from the spillway of an on-site detention system.

Strata subdivision - defined as ‘subdivision’ in the Environmental Planning and Assessment Act 1979. Strata subdivision can subdivide buildings and land into separate lots capable of individual ownership, with additional areas of land designated as common property. Those owning lots within the scheme have a proportional entitlement to use the common property and also a proportional responsibility for its maintenance. Examples are buildings such as townhouses, flats, industrial units and shops, with outside areas such as gardens, driveways and car parking spaces usually being part of the common property lot, owned and managed by the ‘Owners Corporation’.

Street alignment - the boundary between land allotments and a street or lane.

Street frontage height - the vertical distance measured in metres at the centre of the street frontage from the average of the street levels at each end of the frontage to the parapet level of the frontage. The parapet level is the horizontal plane in which at least two thirds of the length of the top of the facade is situated. No part of the facade is to be less than 80 per cent of the height.

Streetscape - means the form, character and visual amenity of the street environment.

Street trees - trees within the road reserve.

Street tree vacancy site – sites identified by Council for future street tree planning. The sites have been identified from analysis of the Local Government Area based on criteria in the Street Tree Master Plan. The information on locations of street tree vacancy sites is available on request from Council.

Subdivision certificate - means a certificate referred to in section 109C (1) (d) of the Act.

Subdivision of land - has the meaning given by section 4B of the Act.

Subdivision work - means any physical activity authorised to be carried out under the conditions of a development consent for the subdivision of land, as referred to in section 81A (3) of the Act.

Subsidence - due to:
(a) the extraction of coal or shale
(b) the prospecting for coal or shale carried out within a colliery holding by the proprietor of the holding

and includes all vibrations or other movements of the ground related to any such extraction or prospecting (whether or not the movements result in actual subsidence), but does not include vibrations or other movements of the ground that are due to blasting operations in an open cut mine and that do not result in actual subsidence.

Summary site audit report - a report prepared by a site auditor containing key information and considerations concerning the conduct and findings of a site audit.

Sunlight – direct sunlight onto the ground or into a building.
Swale - a deliberately formed surface depression for the storage of stormwater runoff. Some swales also have a delayed conveyance function.

SWMMP - Site Waste Minimisation and Management Plan

Temporary sign - an advertisement or advertising structure which is to be displayed for a period not exceeding two months, or such shorter period as Council may otherwise determine and specify in the terms of approval.

The Code (for heritage purposes only) - refers to the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales.

Thermal mass - the heat storage capacity of a given assembly or system. Generally, the heavier and more dense a material is, the more heat it will store, and the longer it will take to release it. A concrete floor is an example of high thermal mass.

Through site link - a pedestrian arcade or link that can be open to the air or enclosed and has a public character, providing a pedestrian right of way that is open and accessible at each end, at least during normal business hours.

Top hamper sign - Attached to the transom of a doorway or display window of a building.

Travel demand management - travel demand management is intervention (excluding the provision of major infrastructure) to modify travel decisions so that more desirable transport, social, economic and/or environmental objectives can be achieved, and the adverse impacts of travel can be reduced.

Tree retention values - weighted combination of tree sustainability and landscape significance used to determine how retainable a tree/s is to guide the site analysis and site planning stages of development. Tree retention values are determined using the following three steps further outlined within the Newcastle Urban Forest Technical Manual:
1. Assess Tree Sustainability
2. Assess Landscape Significance.
3. Weigh Sustainability and Landscape Significance.

Tsunami - a series of ocean waves with very long wavelengths (typically hundreds of kilometres) caused by large-scale disturbances of the ocean, such as:
- earthquakes
- landslide
- volcanic eruptions
- explosions
- meteorites.

Under awning sign - a sign located below or otherwise supported from the underside of an awning.

Undesirable species - tree species listed in the Newcastle Urban Forest Technical Manual that are unsuitable for replanting.

Urban forest - the totality of trees and shrubs on all public and private land in and around urban areas (including bushland, parkland, gardens and street trees) measured as a canopy cover percentage of the total area and is recognised as a primary component of the urban ecosystem.
**Urban structure** - those features of the urban area which give identity and legibility of the city to people passing through its various districts. Structures include gateways, landmarks, edges, and routes.

**Urban village** - urban villages are essentially pedestrian scale, medium to high density, mixed use concentrations of urban development served by efficient public transport and often derived from traditional town centre planning principles. An appropriate example of an urban village is Glebe in Sydney. The urban village concept places a high value on the importance of human interaction and sense of community by providing places and activities for local interchange.

**Urban heat island** - The areas of a metropolitan area which are significantly warmer than suburban or rural areas due to less vegetation and more land coverage.

**Validation and site monitoring** - the process of determining whether the objectives for remediation and any conditions of development consent have been achieved. Reporting requirements for validation and site monitoring are as outlined in the publication Guidelines for Consultants Reporting on Contaminated Sites (EPA, 1997).

**Verge** - means the part of the street reserve between the carriageway and the boundary of adjacent lots (or other limit to street reserve). It may accommodate public utilities, footpaths, stormwater flows, street lighting poles and planting.

**View** - an extensive or long range outlook towards a particular urban aspect or topographical feature of interest.

**View corridor** - generally take the form of cones of vision extending from a selected point towards the valued view.

**Vista** - a narrow view along a street terminated by a notable building or structure.

**Validation and site monitoring** - the process of determining whether the objectives for remediation and any conditions of development consent have been achieved. Reporting requirements for validation and site monitoring are as outlined in the publication Guidelines for Consultants Reporting on Contaminated Sites, 2000, EPA.

**Verandahs** - located on the ground floor. Commonly seen on terrace houses and bungalows.

**VENM** - virgin excavated natural material is natural material, such as clay, gravel, sand, soil or rock fines that:
- has been excavated or quarried from areas that are not contaminated with manufactured chemicals or process residues, as a result of industrial, commercial, mining or agricultural activities
- does not contain any sulfidic ores or soils or any other waste.

**Voluntary Planning Agreements** - an alternative to the payment of a Section 94 or Section 94A levy whereby the applicant may offer to enter into a Voluntary Planning Agreement with Council to fund or provide works in kind for providing infrastructure or facilities not otherwise required as part of the development. Acceptance of an offer is at the sole discretion of Council and where Council decides not to accept the offer, payment of the Section 94 or Section 94A levy will be required.
**Waste** - includes any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment; or any discarded, rejected, unwanted, surplus or abandoned substance; or any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, reprocessing, recovery or purification by a separate operation from that which produced the substance; or any substance prescribed by the regulation to be waste for the purpose of the *Waste Minimisation and Management Act 1995*.

**Waterfront land** - has the same meaning as in the *Water Management Act 2000*.

Note: The definition of waterfront land in the *Water Management Act 2000* is:

(a) the bed of any river, together with any land lying between the bed of the river and a line drawn parallel to, and the prescribed distance inland of, the highest bank of the river, or

(a1) the bed of any lake, together with any land lying between the bed of the lake and a line drawn parallel to, and the prescribed distance inland of, the shore of the lake, or

(a2) the bed of an estuary, together with any land lying between the bed of the estuary and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the estuary, or

(b) if the regulations so provide, the bed of the coastal waters of the State, and any land lying between the shoreline of the coastal waters and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the coastal waters,

where the prescribed distance is 40m or (if the regulations prescribed a lesser distance, either generally or in relation to a particular location or class of locations) that lesser distance. Land that falls into two or more of the categories referred to in paragraphs (a), (a1) and (a2) may be waterfront land by virtue of any of the paragraphs relevant to that land.

**Water cycle management plan** - a plan that identifies additional opportunities to minimise reticulated mains water use. The plan should detail the whole of the water cycle and any public health issues. It may also include consideration of the storage and use of grey water and the installation of water efficient appliances.

**Water sensitive urban design** - the consideration of the water cycle, the incorporation of the values of natural aquatic systems and the recognition of the principles of the resource conservation and reuse in planning and design of the urban and built form.

**Window** - includes a roof skylight, glass panel, glass brick, glass louvre, glazed sash, glazed door, translucent sheeting or other device which transmits natural light directly from outside a building to the room concerned.

**Written notice** - a letter served on a person by post or personal delivery.

**Zero lot line** - a dwelling with no side boundary setback on one side of the lot - ie. the dwelling is built to the boundary. The wall of the dwelling on the lot line has no windows and is constructed in accordance with the Building Code of Australia (BCA).
CCL 28/06/16
AMENDMENT TO SECTION 7.06 STORMWATER - NEWCASTLE
DEVELOPMENT CONTROL PLAN 2012

Attachment C: Schedule of proposed amendments to Section 7.06
Stormwater
## Attachment C - Schedule of proposed amendments
### Amendments to Section 7.06 Stormwater - Newcastle DCP 2012

<table>
<thead>
<tr>
<th>Item</th>
<th>Change</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Add sentence - Modelling parameters shall be used in accordance with Newcastle MUSIC-link.</td>
<td>This is to provide a standard approach to MUSIC modelling in each sub-catchment. Council are working with e-water and Alluvium to develop specific nodes for MUSIC models that can be used by the public as part of the software package. The nodes include parameters defining soil type and runoff qualities that are segregated on a sub-catchment basis.</td>
</tr>
<tr>
<td>7.06.02(1)b</td>
<td>References have now been made to include the minor and major drainage network in items ii and iii.</td>
<td>There was no guidance in the DCP for what the design requirements are for the minor and major drainage system. These terms are included in the definitions but there was no inclusion of them in the DCP.</td>
</tr>
<tr>
<td>7.06.02(1)c</td>
<td>Restructure of the section by providing a separate paragraph for catchments either within or outside of SEPP 14 wetlands catchments.</td>
<td>Inclusion of more clarity in the DCP to reinforce the requirements for SEPP 14 wetlands.</td>
</tr>
<tr>
<td>Table 2</td>
<td>Note added - Where a rainwater tank volume is less than the required storage then the shortfall shall be provided in other site discharge controls for sites greater than 600m$^2$.</td>
<td>This clarifies the need for meeting the storage requirements in Table 2 regardless of the size of a rainwater tank. Developments were being undertaken with raintanks only and no additional site discharge controls to meet the required storage volume.</td>
</tr>
<tr>
<td>Table 3</td>
<td>New table inserted including the size of rainwater tanks in SEPP 14 wetland areas</td>
<td>Tank sizes are provided to guide applicants in addressing the hydrological objectives for SEPP 14 wetlands. The tanks are configured with half of the volume for retention and the other half for detention. In general the tank size is double the requirement for other areas.</td>
</tr>
<tr>
<td>7.06.02(1)d</td>
<td>Restructure of the section by providing a separate paragraph for catchments either within or outside of SEPP 14 wetlands catchments.</td>
<td>The SEPP 14 wetland requirements for rainwater re-use requires connection of the tank to toilets, laundry, outdoor taps and hot water systems. Modelling of the tanks in MUSIC has found that these uses are required to drawdown the tank volume and meets the hydrology objectives.</td>
</tr>
<tr>
<td>7.06.02(1)e</td>
<td>Restructure of the section by providing a separate paragraph for catchments either within or outside of SEPP 14 wetlands catchments.</td>
<td>Site discharge controls are included for SEPP 14 wetland catchments to meet the hydrology objectives. These have been sized using MUSIC modelling and gives specific requirements for small scale development (site area &lt;5,000m$^2$) and a site specific flexibility for large scale development (site area &gt;5,000m$^2$).</td>
</tr>
<tr>
<td>7.06.02(1)e</td>
<td>Amend to read: For additions larger than 50m$^2$, additional discharge controls are required at a rate of 1.8m$^3$ for every 100m$^2$ of additional impervious area.</td>
<td>This was a typo, meant to read 50m$^2$ and not 150m$^2$.</td>
</tr>
<tr>
<td>7.06.02(1)f</td>
<td>Replace heading to read 'Water quality and quantity targets'</td>
<td>The 'Pollutants' heading is confusing because other targets are currently included in this item for water quantity. The proposed heading is more relevant to the contents of this item.</td>
</tr>
<tr>
<td>7.06.02(1)f</td>
<td>Include a new row in Table 4 to include specific targets for catchments draining to SEPP 14 wetlands. This is not an additional control but rather a clearer expression of the control in the current DCP.</td>
<td>The previous DCP version includes a note below this table that loosely guides proponents to use the Water Sensitive Urban Design (WSUD) above wetlands guideline for all catchments draining to SEPP 14 wetlands. This guideline includes an approach to assess the impact of development for a broad range of wetland types and cannot easily be interpreted for...</td>
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<td>Item</td>
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<tr>
<td></td>
<td>Item Change Reason</td>
<td>wetland types of the Newcastle LGA. The changes proposed provide targets that have been recommended by an expert consultant using the WSUD above wetlands guideline and MUSIC modelling.</td>
</tr>
<tr>
<td>7.06.02(1)f</td>
<td>Change Note 1 (below Table 4) according to the wording in the attached memo of Alluvium. This refers proponents to the technical manual for further information and maps to guide developments in catchments draining to SEPP 14 wetlands.</td>
<td>While the targets are more specific with the additional row in Table 4, it is anticipated that further guidance would be of benefit to proponents. The guidance would be in the form of nominating stormwater storage and treatment requirements to meet the targets in SEPP 14 wetland catchments. In addition guidance would be provided on generic MUSIC modelling methods to demonstrate how a proposed development would satisfy the water quality and quantity targets. These are not additional requirements to the current DCP, they are clarifications of the current controls.</td>
</tr>
<tr>
<td>7.06.02(3)</td>
<td>Modify first sentence to read: &quot;Maintenance manuals are to be provided for all devices in large scale development and selected devices for other types of development that include on-site retention, bioretention raingardens, bioretention swales, porous paving, and sand filters within basins.&quot;</td>
<td>The current wording leaves out stormwater management devices for large scale developments that may include large rainwater tanks and water harvesting systems. The changes are intended to capture maintenance requirements for all devices on large scale development and a list of specific devices for all other developments. This is not intended to burden single lot developments, where it would still be allowable to install raintanks and pumps without a maintenance manual.</td>
</tr>
<tr>
<td>7.06.03</td>
<td>Include additional objectives and controls as follows: <strong>Objectives</strong> 3. To set minimum standard for stormwater devices and riparian corridors that are to remain in private ownership 4. To ensure maintenance is undertaken for private assets <strong>Controls</strong> Add item #9. All new drainage works shall be inspected by CCTV following construction and the footage and associated report submitted to Council upon hand-over. This is to be in accordance with Council's specifications provided in the consent conditions. Add controls after control #9 to read: The following controls apply to development that creates a shared private asset such as stormwater devices, discharge controls and riparian corridors. 10. A maintenance plan is to be submitted to Council as part of the development application. 11. All weather access tracks are to be provided to private assets for maintenance.</td>
<td>At present this section adequately stipulates controls for stormwater devices that are to be taken on by Council. There are no controls for devices that are to be retained under shared private ownership. Council has experienced cases when private assets are poorly constructed, used inappropriately and neglected. While these assets are not Council's responsibility all stormwater controls, whether public or private, drain to a receiving environment in public land. Poorly used/maintained private assets reduce water quality, degrade waterways and wetlands. Cases are observed in the Western Corridor where privately owned riparian corridors are being used for rubbish dumping, dirt bike tracks and market gardens. Such uses mobilise sediments in stormwater and deposit them downstream. The additional controls are included in an attempt to reduce the burden on Council's natural assets and to improve water quality. Additional control for submission of CCTV footage and report for all new drainage works to complement Council's records of CCTV across the city to assist with operation and maintenance.</td>
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<td>purposes.</td>
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<td><strong>12.</strong> Where fencing is installed it shall not preclude access for maintenance.</td>
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<td><strong>13.</strong> All stormwater devices shall be designed and constructed to meet the water quality and quantity targets of this DCP</td>
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<td></td>
<td><strong>14.</strong> All stormwater devices and riparian corridors shall observe the requirements of the NSW Office of Water</td>
<td></td>
</tr>
<tr>
<td>Definitions</td>
<td><strong>Update definitions including definitions for large and small scaled development.</strong></td>
<td>Of particular importance was to clarify the difference between the development types for large and small scale, as this was creating confusion for applicants.</td>
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<tr>
<td>Item</td>
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<tr>
<td><strong>Section 1.1.5</strong></td>
<td>Inserted sentence: <em>Developments in SEPP 14 wetlands have specific hydrology objectives and can be met by either addressing the deemed to comply requirements or by undertaking a detailed MUSIC model for an alternative approach.</em></td>
<td>There have been investigations done by water engineering experts to advise a suitable approach for development of all scales to meet the hydrology objectives for SEPP 14 wetland catchment. This can be achieved by either adopting the deemed to comply requirements or through design of a site specific approach. The simplest approach for developers would be to adopt deemed to comply. Specific raintank and bioretention system sizing for this has been developed. Guidance is provided in more detail throughout this update to fully inform the development industry of the clarification provided for the existing SEPP 14 wetland objectives.</td>
</tr>
<tr>
<td><strong>Section 1.2.1</strong></td>
<td>Insert dot point <em>A statement or map indicating the development location and which catchment it resides (Appendix 2)</em></td>
<td>This is to prompt the proponent to demonstrate what catchment the development is located within in order to determine if a standard approach applies or if the development is in SEPP 14 wetlands catchment.</td>
</tr>
<tr>
<td><strong>Table 1.1</strong></td>
<td>Added a row at the top of the table to include which Catchment Area the development is located. Minor changes to the wording throughout to capture updates to the development assessment tools.</td>
<td>Proponents must be aware if their development is located within a SEPP 14 wetland catchment or not and this is captured with an additional row in the checklist. Council has recently adopted the MUSIC link method for assessing the requirements for stormwater quality and quantity in a large scale development. Wording has been updated in this table to ensure the developers check they have undertaken their Water Cycle Management Plans correctly.</td>
</tr>
<tr>
<td><strong>Section 2.1.2</strong></td>
<td>Insert dot point: <em>All Council pipelines made redundant are to be disposed of by either manual excavation and removal, or by grouting the redundant pipeline in situ. This includes Council pipelines within development sites that are proposed for relocation. Methodology for disposal is to be referred to Council’s Asset Management section for approval and is to include details of the existing and proposed stormwater layout on a Stormwater Management Plan.</em></td>
<td>Provides clear instruction on how to remove existing pipelines when undertaking development.</td>
</tr>
<tr>
<td><strong>Section 2.1.2</strong></td>
<td>Update Fig 2.1 - Footing zones</td>
<td>Provides latest guidance for protection of pipes from footings.</td>
</tr>
<tr>
<td><strong>Section 3.1.3</strong></td>
<td>The use of the terminology for design storms changed from year ARI to Annual Exceedence Probability (AEP). Insert words in italics below to the paragraph: <em>Underground piped drainage, surface inlet pits, roof gutters and downpipes</em></td>
<td>Updated for consistency with industry standards and the DCP. Additional wording added to clarify that in most cases the design capacity of the Council drainage system is the 10% AEP and should be observed where connections from private drainage is required so there is no adverse impact on conveyance due to development. Note that the design capacity for private drainage systems is the 5% AEP.</td>
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<td>(the minor system) <strong>within private land</strong> should be designed to cater for the 5% AEP event without creating significant ponding or flows in trafficable areas. <strong>Where connections to the public drainage system are proposed then refer to Section 5.1.2 for details on capacity.</strong></td>
<td></td>
<td>The volume requirements are now irrelevant considering the minimum tank size requirement is 4kL. The use of demands and an efficiency of minimum 60% ensures that the tanks would EITHER be a minimum of 4kL and reach an efficiency of 60% or above for small dwellings OR the tank would need to be sized appropriately to supply the demands for larger dwellings/industrial development.</td>
</tr>
</tbody>
</table>
| Updated wording according to those shown in italics below:  
**In order that such flows do not present an unacceptable hazard to vehicles and pedestrians, the depth-velocity product should be generally less than 0.4m²/s in both private and public areas. In addition the maximum velocity in the major drainage system shall be 2m/s and the maximum depth shall be 0.3m. Further more detailed flood modelling and mapping may be required for development in flood prone land in accordance with the Flood Management DCP.**  
Delete the v x d product equation - this is common knowledge  
Delete Appendix 2 - this is out of date | **A velocity depth product up to 0.4m²/s is in line with the latest research being undertaken for the Australian Rainfall & Runoff (AR&R) update. The additional depth and velocity limit represents the threshold where the stability of small motor vehicles is reached. Flow intensity greater than these thresholds poses significant flood risks in the 1% AEP. Furthermore detailed analysis and mapping may be required for cases where the development in within flood prone land. This updated wording eliminates the need for Appendix 2.** | |
| Volume requirements in Table 4.1 are completely replaced with rainwater tank demands so that tanks are sized according to the required uses. | | The volume requirements are now irrelevant considering the minimum tank size requirement is 4kL. The use of demands and an efficiency of minimum 60% ensures that the tanks would EITHER be a minimum of 4kL and reach an efficiency of 60% or above for small dwellings OR the tank would need to be sized appropriately to supply the demands for larger dwellings/industrial development. |
| **Insert new dot point:**  
- **Include a high flow bypass for major storms where flows should be directed around the raingarden to avoid scour the vegetated surface. If the constraints of the location preclude the ability to by-pass high flows then design calculations shall be undertaken to meet the following velocity criteria.** | | High powered flows have the potential to erode and scour the mulch and vegetation on the surface of the bioretention system. These flows are also in excess to the capacity of the filtration component of the system. Thus directing them away from the bioretention filter protects it from erosion and has no net loss of stormwater treatment. |
| A new section included for bioretention system sizes and configuration as a deemed to comply solution for small scale development in SEPP 14 wetland catchments. | | This sections has been added to outline the deemed to comply requirements for rainwater tanks in SEPP 14 wetlands. An on-site retention system may be installed in the place of a bioretention system depending on the preference of the applicant. |
| **Wording updated as per the inclusions in italics below:**  
- The desirable maximum longitudinal grade of the swale is 4% and bioretention should be constructed in a flat section of the swale to **ensure filtration of stormwater. This can be achieved with check dams** | | Where a bioretention filter is included in a swale it can only have the ability to actually filter the flows if they can infiltrate through the filter media. Swales are used to convey stormwater and thus where the slop of the swale is above 1% the flow would naturally go downhill rather than infiltrate. Thus some design elements are required to either have the filter on a flat part of the swale or to provide check dams which temporarily detain the flow so it can infiltrate. |
<table>
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<tr>
<td>Section 4.11</td>
<td>Providing some extended detention of the stormwater in conveyance or preferably in the most downstream extent of the swale.</td>
<td>Provides clarification so that the revised approach to assessing large scale development using the MUSIC link model is applied.</td>
</tr>
<tr>
<td>Figure 4.b.1 in Section 4.13</td>
<td>Updated the box on the right in regards to SEPP 14 wetlands</td>
<td>Provides clarification on the approach required for SEPP 14 wetland catchments</td>
</tr>
<tr>
<td>Section 4.14.1 in last sentence</td>
<td>Wording amended to reflect what this section now contains, as some content relocated to Section 4.21.</td>
<td>See reasons below why Section 4.16 has been changed</td>
</tr>
<tr>
<td>Section 4.15.1 under #2 Soil Store Parameters</td>
<td>Delete words: Ideally, the MUSIC model will be calibrated to a local waterway or one in a neighbouring catchment with similar geology and topography. In lieu of calibration data, applicants are referred to the Draft NSW MUSIC Modelling Guidelines (August 2010). Insert wording to replace the above: Source nodes have been created in MUSIC link to guide the selection of appropriate soil store parameters depending on the location within the Newcastle LGA. Refer to Appendix 2 and MUSIC link for details.</td>
<td>The ability to calibrate a MUSIC model requires stream gauging data that is not readily available for the waterways in Newcastle. Hence the calibration of a MUSIC model is unlikely. MUSIC link has been populated with 4 types of source nodes with specific parameters depending on the water catchment of the development. These parameters are based on investigation of soil properties throughout the LGA and MUSIC models that had previously been prepared using stream gauging data.</td>
</tr>
<tr>
<td>Section 4.16</td>
<td>Shifted the Stormwater Treatment content from here to Section 4.21</td>
<td>The stormwater treatment devices listed in this section were common to those included in Sections 4a and 4c. There was also found to be some inconsistencies between the wording for the devices between the sections. Therefore a more robust approach is proposed to refer to Sections 4a and 4c for large scale development rather than repeating wording and possibly confusing the applicants.</td>
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<tr>
<td>Section 4.16</td>
<td>Rename to 'Satisfying objectives for SEPP 14 Wetlands' and include content to guide proponents in meeting hydrology objectives for SEPP 14 wetland catchments.</td>
<td>It is not expected that large scale stormwater treatment devices would be located in private land unless there are special cases where large devices remain under community title.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This Section guides proponents to meet the hydrology objectives of the DCP for SEPP 14 wetland catchments. The content documents two approaches to meeting the objectives: 1. Deemed to comply 2. Site specific This allows the proponents to easily address the objectives by adopting the deemed to comply approach or to come up with a tailored approach for their site. It is anticipated that larger sub-divisions would aim for a site specific approach and other large developments can easily adopt the deemed to comply solution. The amount of content included here reflects the complexity in achieving the hydrology objectives. The guidance provided is detailed and can be used comprehensively by the developer's consultants.</td>
</tr>
<tr>
<td>Section 4.20</td>
<td>Point 4 - Delete the words ‘the guidelines that follow are grouped into sub-sections, each dwelling with separate issues’ and replace with: <strong>Electronic work as executed drawings is to be provided following the installation of all public assets. The format of the electronic files is provided in the conditions of consent.</strong></td>
<td>The previous wording was obvious and unnecessary. The new wording is required to build Council's asset database in electronic format saving the need for council to undertake time consuming work to translate drawings into the required electronic format.</td>
</tr>
<tr>
<td>Section 4.21</td>
<td>Text copied over from Section 4.16 and some clarification edits made to elaborate on the need for high flow bypass</td>
<td>The consolidation of Section 4.16 into 4.21 makes the guidance for developers less confusing because there is not repetition of information. While there might be a small number of cases where large developments may have devices on private land it is anticipated that such developments would refer to the sufficiently detailed guidance for site discharge controls.</td>
</tr>
</tbody>
</table>
ORDINARY COUNCIL MEETING
28 JUNE 2016

CCL 28/06/16
AMENDMENT TO SECTION 7.06 STORMWATER - NEWCASTLE DEVELOPMENT CONTROL PLAN 2012


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Part 1  Preliminary information

This section contains general information about prospective applications and the philosophy behind the Newcastle City Council’s Stormwater management controls for development sites.

1.1 Introduction

1.2 Planning
   - Assessment process
   - Water cycle management plans

1.1 Introduction

1.1.1 Context

This technical manual supports the Newcastle Development Control Plan (DCP) 2012 and shall be read in conjunction with section 7.06 Stormwater Management, 7.07 Water Efficiency and 7.02 Landscape, Open Space and Visual Amenity, and provides detailed text, instructions and best practice guidelines on the management of stormwater run off from all public and private property within the Newcastle City Council Local Government Area (LGA). The DCP and this technical manual are important tools that support the delivery of Water Sensitive Urban Design (WSUD) and improved stormwater and water efficiency throughout Newcastle.

In order to streamline the link between the DCP and this manual, each section will refer directly to provisions in the DCP. Further, technical guidance has been provided through extensive reference to best practice guidelines. They should be read in conjunction with one another when preparing a proposal or determining an application.

Figure 1.1 - The Newcastle City Council document relationship flowchart for stormwater
1.1.2 Aims

The aims of this technical manual are:

- To outline Council’s requirements for stormwater management.
- To ensure water efficiency is incorporated into development proposals.
- To provide additional guidance and assist in implementing the Newcastle Development Control Plan.

1.1.3 Design principles

In order to ensure that water receives due consideration during the planning stages of a proposed development, the following design principles have been provided:

**Integrated water cycle management**

- The water source used for a particular end use should reflect the quality required for that end use (fit for purpose).
- The roof area directed to a rainwater tank should be maximised, to both increase the effectiveness and reliability of the reuse system, and reduce the degree of stormwater treatment required for those areas not draining to the rainwater tank.
- Dual reticulation should be provided for all Greenfield and infill redevelopments which are located in existing or planned recycled water reticulation zones.
- Reduce hydrological impacts of development (as far as possible) by preserving interactions between surface and groundwater therefore delivering appropriate water to the right places for the right times.

**Stormwater quality**

- WSUD elements are to be integrated into landscaped areas to fit into the built environment of the development.
- WSUD elements are to be designed and located to maximise the impervious area that is treated.
- Consideration should be given to incorporation of multiple use of WSUD infrastructure (such as stormwater detention and treatment), where possible.
- WSUD elements should be incorporated to enhance ecological outcomes.
- Where WSUD elements are within areas of shallow groundwater tables, all assets are to be lined to prevent contamination of local groundwater sources unless it can be demonstrated that unlined systems will sufficiently protect groundwater quality.
- Integrate stormwater quantity management with quality management to optimise treatment performance and improve opportunities for re-use and groundwater management.

**Stormwater flows (quantity)**

- Disconnection of impervious areas from the drainage system can include directing run off from downpipes, rainwater tank overflows and impervious areas onto stormwater harvesting devices, infiltration measures and grassed and other landscaped areas designed to accept these flows.
- The physical nature of flows into receiving environments needs to be preserved. In particular, where the receiving environment naturally receives dispersed flows, concentration of flows should be avoided.
1.1.4 Relationship to flood risk management development controls

This technical manual aims to mitigate the effects from additional runoff generated by new development. However, even after full implementation of this policy, there will still be areas of Newcastle that will be prone to flooding. This is because:

- These areas would flood from time to time even if there were no development at all in the catchment. Flooding is a natural part of the geomorphological cycle. Catchment surfaces have a limited capacity to absorb rainfall. When that capacity is reached, further rainfall runs off. This is why the storage of a set volume of water is a close approximation of the hydrological regimes. It is also why the catchment floods after prolonged periods of rainfall when the catchment is “saturated”.
- There are still older parts of the catchment that were developed in earlier times under a different philosophy. It may be quite some time before the development cycle restores the current drainage philosophy to those areas.

The cornerstone of effective flood management is a separate flood risk management plan that addresses issues such as appropriate location of development, appropriate setting of floor levels and the provision of escape routes and refuges. Newcastle City Council adopted Newcastle City-wide Floodplain Risk Management Study and Plan including development controls. Please refer to the following documents/links for further details:

Newcastle City-wide Floodplain Risk Management Study and Plan

1.1.5 How to use this technical manual

This technical manual provides guidance on how to achieve the ‘objectives’ and ‘targets’ for integrated water cycle management, water quality and stormwater flows through the DCP (the DCP allows some flexibility in the application of the controls where strict compliance is unreasonable given the circumstances of the applicant).

The target audience for this technical manual are developers, builders, plumbers and owner-builders. Some of the recommended controls are conservative in order to make them generally applicable.

Detailed guidance is provided throughout this manual for both small and large developments, however small developments (ie. less than or equal to 5,000m² as defined by the legal property description) have a more simplified process to complete, reflecting the lower risk from this scale of development while still remaining equitable with regards to managing their environmental impacts.

For large development proposals (ie. greater than 5,000m² as defined by the legal property description) it is recommended that the applicant seek advice from a practicing Civil Engineer, or suitably qualified professional, in the most efficient solutions to the development controls.

Developments in SEPP 14 wetlands have specific hydrology objectives and can be met by either addressing the deemed to comply requirements or by undertaking a detailed MUSIC model for an alternative approach.

This technical manual is arranged in order of:

- Stormwater Collection
- Site discharge controls – small scale development (less than 5,000m²)
- Site discharge controls – large scale development (greater than 5,000m²)
- Site discharge controls – Council assets
- Overflow disposal.
It follows a logical progression from the point where rainwater is collected, to the site discharge controls, to the manner in which it may be discharged to the public drainage system (Council Assets).

There is also additional information explaining some of the technical terms and references on which this manual was based (refer to Glossary).

Included is a copy of event based rainfall data used in the city of Newcastle (refer to Appendix 1).

Finally, there is a series of drawings that add further detail to the technical guidelines, as outlined in this manual (refer to Part 4a for further details).

1.1.6 Applicability

This technical manual has been prepared to facilitate the application of best practice stormwater management, following the principles of Water Sensitive Urban Design (WSUD) in the Newcastle Local Government Area (LGA). The provisions of stormwater Development Control Plan 7.06 apply to all development in all areas in the city of Newcastle including single dwelling houses (the impervious area from houses forms approximately 40 – 50% of residential catchments and is a significant contributor to environmental and flooding issues).

Where the applicant can show that adequate measures are already in place to address stormwater issues, it may not be necessary to provide on-site detention and/or site discharge controls.

1.2 Planning

1.2.1 Development Applications

This manual supports the DCP section for stormwater management (7.06) and water efficiency (7.07). Development Applications will follow Council's normal process. Generally, an approved development application will have specific conditions requiring certain compliance with stormwater controls.

Where consent does not require specific compliance, this manual should be regarded as best practice guidelines.

A development application or complying development certificate application (where required) is to be accompanied by a Stormwater Management Plan. A Stormwater Management Plan shall include the following items:

- A statement or map indicating the development location and which catchment it resides (Appendix 2)
- The location of all buildings, driveways and impervious surfaces
- The location of any watercourses or bushland passing through or adjacent to the property
- Any overland flowpaths which drain through the property or adjacent to the property
- The location, size and depth of easements or drainage pipelines.

In addition, the Stormwater Management Plan is to show the appropriate design elements to achieve compliance with the requirements set out in the subclauses of DCP 7.06.
1.2.2 Development assessment checklist

WSUD needs to be considered during the planning stages of a proposed development, rather than as an additional feature to be included at the final stages of the process. In order to assist with the consideration of WSUD during the planning stage, Council has prepared an assessment checklist (refer to Table 1.1). A copy of the checklist shall be submitted to Council with each Development Application.

1.2.3 Comprehensive Water Cycle Management Plans

Water cycle management is part of the overall concept of ecologically sustainable development. Council requires ESD to be considered in all new development applications.

Development proposals that:

− incorporate 20 or more dwellings, or
− accommodate 50 or more employees or clients, or
− involve the use of more than 1 hectare of land for commercial, industrial or special use purposes,

should be designed and constructed in accordance with a comprehensive water cycle management plan.

Plans should detail the whole of the water cycle and identify where and how improved sustainability is to be achieved. Plans should address, but not be limited to:

- **Supply**
  - importation of mains water
  - collection of rain water
  - interception of groundwater

- **Use**
  - drinking, bathing, washing, cleaning, toilet flushing, industrial processing and irrigation as applicable

- **Treatment**
  - filters, ponds, chlorination, biocycles and heating as appropriate

- **Discharge**
  - sewer
  - stormwater
  - evapotranspiration
  - groundwater.

Plans should also consider the public health issues potentially associated with use and reuse of water. Where sewer is available, the disposal of black water to sewer is preferred. Grey water may also be disposed to sewer, or alternatively, other methods provided that the public health risk is considered.

A comprehensive water cycle management plan may include the storage and use of grey water, specification of the type of landscaping to be used and the installation of water efficient appliances.
Table 1.1 - Broad scale assessment checklist for WSUD

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Y</th>
<th>N</th>
<th>NA</th>
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<tbody>
<tr>
<td>1 Integration of the whole water cycle</td>
<td></td>
<td></td>
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<tr>
<td>WSUD principles have been integrated into the proposed development.</td>
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<td></td>
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<tr>
<td>Opportunities for on site water re-use have been identified and utilised.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Management and minimisation of hydrology impacts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrology Objectives have been identified and addressed in a Water Cycle Management Plan (imperious areas shown, design events indicated, conveyance requirements identified for minor/major drainage systems, peak flows shown, appropriately sized on-site retention etc.).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High flows have been catered for (bypass structures, overland flow paths, overflow disposal to legal point of discharge shown etc.).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impacts upon receiving environment have been determined and minimised (erosion protection, dissipation of concentrated flows).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Management and minimisation of ecological impacts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management Objectives have been identified and addressed (Newcastle MUSIC link used for modelling, MUSIC link report submitted, site discharge controls in accordance with DCP)</td>
<td></td>
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<tr>
<td>A treatment train approach has been developed where practicable.</td>
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<tr>
<td>Appropriate use of source controls to minimise the generation of excessive runoff/pollution at or near its source.</td>
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<tr>
<td>4 Maintenance and/or enhancement of visual and social amenity</td>
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</tr>
<tr>
<td>WSUD has been integrated into landscape form.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple use assets and/or corridors are proposed (verge side swales, bio-retention ponds, constructed wetlands etc.).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public health and safety issues considered and addressed (batter slopes, water depths/velocities, stagnant water etc.).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Minimisation of whole of life asset costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance requirements are considered (maintenance plans provided, maintenance access point for vehicles identified).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset life cycle cost determined.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset ownership and responsibility defined and agreed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost effectiveness of strategy evaluated and maximised.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Provision of alternative sources of water/mains water use reduced</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rainwater harvesting consistent with expected reuse opportunity &amp; DCP (number of people using site, type of development etc.).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water tank reticulated to new toilets, laundry, hot water and garden taps where appropriate (water reuse fit for purpose).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water reused in industrial/commercial developments where practicable. (eg. vehicle washing, landscaping, irrigation).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Erosion and sediment control plan
All builders/developers are required to prepare an Erosion and Sediment Control Plan showing how they will minimise soil erosion and trap sediment that may be eroded from the site during the construction of a building or development. The Plan must be prepared by a person with suitable qualifications, experience or ability in the preparation of such plans and that has a demonstrated knowledge of soil and water management. The complexity of the Plan depends upon the nature and scale of the particular development, especially the amount of land likely to be disturbed. In the Newcastle Local Government Area, proposals involving disturbed areas larger than 50m² require an Erosion and Sediment Control Plan.

Responsibilities for stormwater management arise from the *Protection of the Environment Operations* (POEO) Act 1997. Compliance with the POEO Act is achieved by preparing an Erosion and Sediment Control Plan that shows how the builder/developer will minimise stormwater pollution and implement the Plan after Council approval.

The Plan should be a stand-alone document consisting of both drawings and a commentary that can be understood easily by all site workers. Appendix 3 provides an example of the information to be contained in a Plan for a single residential allotment. The objective is to ensure everyone working on the site understands the Plan and how important it is not to pollute stormwater.

A more detailed Soil and Water Management Plan is required for larger-scale developments, where more than 5,000m² of land (in accordance with the legal property description) is to be disturbed in accordance with Council’s Stormwater DCP 7.06.

Erosion and Sediment Control Plans and Soil and Water Management Plans are to be prepared in accordance with 'Managing Urban Stormwater: Soils and Construction - Volume 1, 4th edition 2004 (the 'Blue Book').

1.2.4 Constraints and opportunities
Careful site planning is the key to any successful development. The inherent flexibility of this policy is in the choice of site discharge controls. Some devices will suit certain physical site constraints, others will not. It is a matter for the applicant, in consultation with Council, to implement the most suitable solution for the site with regard to opportunities and constraints. Some of the relevant issues are:
- Urban design
- Geotechnical conditions
- Function and serviceability
- Available space
- Existing vegetation
- Building form
- Aesthetics
- Maintenance

1.2.5 Relationship to BASIX
Water conservation measures required for residential development is stipulated by the State Government’s BASIX legislation. This is applicable to all residential development and is required to be submitted with the Development Application. BASIX is not covered by this document – for further details go to the Department of Planning’s website www.basix.nsw.gov.au.

Compliance with BASIX will go towards meeting the requirements of the Deemed to Comply Provisions outlined in this Technical Manual (Refer to Part 4a).
1.2.6 References

To assist with the selection and implementation of appropriate stormwater management controls, this manual provides a series of references to best practice guidelines. These guidelines have been carefully selected to provide a suite of documents to assist with the selection of appropriate WSUD elements.

Where appropriate and available, detailed reference will be made to technical guidelines to assist with the selection process. The use of these best practice guidelines will assist both the applicant and Council to achieve the requirements listed in the DCP.
Part 2  Existing infrastructure

This section contains general information about dealing with existing road and drainage infrastructure, be it inside or outside the site boundaries.

2.1  Existing drainage systems

2.2  Roads Act (1993) approvals

2.1  Existing drainage systems

2.1.1  Application

In some circumstances, the site may be traversed by an existing drainage line. Existing lines may or may not be protected by drainage easements. Easements may be in favour of Council, Hunter Water Corporation or the upstream property owners.

2.1.2  Guidelines

The following guidelines give further detail in designing development so that existing drainage systems are not adversely affected.

- Structures (such as buildings, garages, impervious fences and pools) are not to be located within a drainage easement or, if there is no easement, within 1.5m of the centreline of a drainage pipe. Eave overhangs are permitted subject to at least 4.5m clearance to ground level.

- Carports or similar open-ended structures may be located over a piped drainage easement or drainage line subject to the following criteria:
  - A 2.5m wide clear zone with 2.5m clearance is at least provided through the structure along the length of the easement or pipe.
  - Footings do not encroach upon the easement.
  - Footings are carried down to the level corresponding to the underside of the stormwater pipe.
  - Existing ground levels over the easement or pipe are not substantially altered.
  - Existing overland flowpaths are maintained.

- Paving comprised of water-resistant materials such as reinforced concrete, clay or concrete bricks or asphalt may be located over a drainage line or easement. A suitable full depth expansion joint should be provided at the easement boundaries.

- All Council pipelines made redundant are to be disposed of by either manual excavation and removal, or by grouting the redundant pipeline in situ. This includes Council pipelines within development sites that are proposed for relocation. Methodology for disposal is to be referred to Council's Asset Management section for approval and is to include details of the existing and proposed stormwater layout on a Stormwater Management Plan.

- Clearances between easement boundaries and proposed structures should be sufficient to:
  - prevent undue loads from bearing on drainage structures
- prevent loss of foundation support in the event of future maintenance excavation works
- allow conveyance of overland flows associated with the easement up to the 1% AEP event

- Foundations must be designed to ensure continued structural integrity and independence of both proposed structures and existing drainage systems.

- Footings for buildings should not be founded on material that is shallower than a line drawn at 45 degrees to the vertical from the bottom edge of the existing drainage system trench. Refer to Figure 2.1.

- Where an existing drainage system traverses a proposed development site, Council will require a pre and post construction dilapidation survey to be undertaken and submitted to Council. The dilapidation survey will be undertaken in accordance with Councils CCTV specification requirements.

- Where an existing structure is located over a drainage line or easement within the site, an access pit to the drainage system should be provided at both ends of the building.

- Where existing drainage lines traverse a site under the footprint of a proposed building, the drainage line should be relocated to an alternate route, not under the building.

Retaining walls, cutting and filling is not to occur over easements benefiting Council.

![Figure 2.1 - Footing Zones](image)

2.2 Roads Act (1993) approvals

2.2.1 Application

Most development requires a connection to the public drainage system at the street gutter or a stormwater pipe adjacent to the property. Any work carried out in a public road (for example, digging up the footway and laying pipes) requires the consent of the relevant roads authority under section 138 of the Roads Act 1993. In most cases the relevant roads authority is Council.
For minor works including driveway crossings, road restorations and stormwater pipes up to and including 150mm Diameter, Council issues “Road Opening Permits”. These are express approvals for the works and attract a minimal fee.

For major items over and above the scope of minor works, Council will issue a detailed approval under the Roads Act. Any major works will require detailed plans properly prepared by a Civil Engineer or Registered Surveyor and will attract the appropriate fees. Work as executed drawings will be required by Council at the conclusion of the works.

2.2.2 General

These approvals are separate to the development approval process and should be obtained:

- In the case of development that needs consent – prior to the issue of a Construction Certificate.
- In the case of complying development – prior to the issue of a Complying Development Certificate.

Note – Private certifiers cannot issue approvals under S138 of the Roads Act 1993 for works in the public road reserve.

Applications for Opening Permits may be made to Council’s Works Depot at Turton Road, Waratah on Ph. 4974 6000 between 7.30am and 3.30pm.

Applications for more major works may be made to Council’s Development and Building Section at King Street, Newcastle on Ph. 4974 2030 between 8.30am and 5.00pm.
Part 3  Stormwater collection

Site drainage describes the acceptable methods and standards for the collection and the conveyance of stormwater through the site.

3.1  General requirements

3.2  Litter

3.1  General requirements

3.1.1  Application

The site drainage system is the system that collects runoff from the place where rain falls and conveys it to the discharge point on the site. In most circumstances, there will be a site discharge control between the point of collection and the discharge point. The conveyance system to the site discharge controls should be designed in accordance with these standards.

3.1.2  Catchment

The catchment should be considered as the site plus all additional area that can generate surface water has the potential to cross over the boundary. All such water should be collected by the site drainage system and conveyed (via the site discharge controls if required) to the public drainage system. Water generated from outside the site should be considered in the application.

In addition, the development should not dam up water on the uphill side such that nuisance is created to the detriment of the uphill land occupier.

3.1.3  Capacity

Underground piped drainage, surface inlet pits, roof gutters and downpipes (the minor system) within private land should be designed to cater for the 5% AEP event without creating significant ponding or flows in trafficable areas. Where connections to the public drainage system are proposed then refer to Section 5.1.2 for details on capacity.

There should be designed provision for overflows in extreme events (the major system) to convey stormwater to the discharge point of the site. In general, the design capacity of the major system should be the 1% AEP event. In order that such flows do not present an unacceptable hazard to vehicles and pedestrians, the depth-velocity product should be generally less than 0.4m²/s in both private and public areas, in accordance with Cox et al 2010. In addition the maximum velocity in the major drainage system shall be 2m/s and the maximum depth shall be 0.3m. Further more detailed flood modelling and mapping may be required for flood prone land in accordance with the Flood Management DCP.

3.1.4  Upstream flows

Regardless of the drainage controls on the uphill property, the development site should be designed to cater for overflows and runoff from outside the site. Buildings, landscaping, fencing and site works should be designed to not impede the flow of upstream water to the detriment of any other property. Such water should be collected on site and conveyed to the public drainage system by a site system with adequate capacity in accordance with this standard.
3.1.5 Laneways

The conveyance of drainage off laneways is particularly important. Council does not guarantee that all water will be contained within laneways. It is the responsibility of the developer to ensure that excess water from laneways is adequately conveyed through the development site in accordance with the standards in this manual.

3.1.6 Pipe system requirements

Underground pipes for drainage inside the development site should meet the following criteria:

- Minimum internal diameter 90mm.
- For sites larger than 5,000m² or for pipes that are designed for more than 100 litres per second, the pipe systems should be designed by a consulting engineer using hydraulic grade line analysis.
- Longitudinal grades should be a minimum of 1% for pipe diameters up to 150mm and 0.5% for diameters of 225mm and larger.
- Pipe location, strength and other characteristics should be compatible with the proposed and possible future development.
- Surface inlet pits should meet the following criteria:
  - Pits should be provided at all changes in pipe direction exceeding 45 degrees, pipe junctions or property boundaries.
  - A minimum size 450mm square grated pit must be provided within the property at the road boundary prior to the nature strip or footway pipe crossing.
  - Pits should meet the dimensions shown in Table 3.1.
  - Step irons should be installed inside pits deeper than 1200mm.
  - Pit covers should be installed to provide access and to exclude litter where required. Covers should be removable, designed to appropriate loadings and constructed from galvanised steel, cast iron, concrete or infill cast iron.
  - Where pits are located in concrete driveway structures or other surfaces subject to heavy loading, pits should be constructed from concrete and suitably steel reinforced.

<table>
<thead>
<tr>
<th>Minimum Pit Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth (mm)</td>
</tr>
<tr>
<td>&lt; 300</td>
</tr>
<tr>
<td>300 - 600</td>
</tr>
<tr>
<td>600 - 900</td>
</tr>
<tr>
<td>900 - 1200</td>
</tr>
<tr>
<td>&gt; 1200</td>
</tr>
</tbody>
</table>

Roof box gutters should be designed in accordance with AS3500.

Underground pipes underneath buildings are only permitted in the following circumstances:

- where there is no practicable alternative and pipes cannot be routed around the building
- where the number of pipes underneath the building is minimised as much as practicable
- where piping underneath buildings is straight with no bends or junctions
- inspection openings must be provided at all points of entry and exit under the building.
3.2 Litter

3.2.1 Application

All development sites with the exception of residential developments up to and including four dwellings should provide litter control in line with the site drainage scheme (refer Figure 3.1). Litter has the potential to block site discharge controls, rendering them ineffective. It is considered that small residential developments are less likely to be generators of large amounts of litter because of the owners’ relationship with the property.

Litter should be directly filtered from stormwater using some form of screen or centrifugal action or both. There are a variety of litter traps available on the open market that will satisfy Council’s criteria and selection will depend on available space and maintenance issues.

![Figure 3.1 - Gross Pollutant Trap](image)

3.2.2 Requirements

In general, Council’s requirement is that all litter greater than 5mm is separated and removed from stormwater. Litter should not be stored in a wet vault type trap as these can have a propensity to further break down and cause eutrophication problems downstream.

3.2.3 Hydraulic performance

Litter traps should be designed to filter stormwater within the constraints of the site drainage system. Even when full, they should not cause the system to surcharge (overflow) in the design 5% AEP event.
3.2.4 Maintenance and cleaning

Adequate access needs to be provided for maintenance. This includes an all weather hard stand access for truck or backhoe if necessary. Step irons should be provided in pits that are intended for access and are deeper than 1.2m.

Litter traps should be inspected and cleaned on a regular basis. The final cleaning frequency will depend on the capacity of the trap, and the amount of litter generated by the development.
Site discharge controls are designed to limit the number of runoff events and to lower the impacts of runoff events that do occur. The collected water is released back into the catchment or is disposed of in some other manner. The discharge rate is between 2mm per day and 2mm per hour.

All site discharge controls reduce the “directly connected impervious area” of the site and buffer the most frequent rainfall events. They also have the effect of reducing the total runoff from developed areas such that downstream drainage systems do not feel the effect of upstream developments. Figure 4.1 shows the changes in catchment hydrology associated with a natural (pre-development) and developed (post development) catchment. Best practice stormwater management is used to return the discharge to a natural flow.

The site discharge controls are sized according to the volume of storage required; refer to DCP 7.06 for details of the storage requirements. Selection of the appropriate device is a matter of choice for the applicant and will depend on the site constraints including aesthetics, serviceability and geotechnical issues.

Developments in SEPP 14 wetlands have specific hydrology objectives and can be met by either addressing the deemed to comply requirements in Section 4.3.2 and Section 4.6.8 or by undertaking a site specific solution using the methods described in Section 4.16.

For subdivision of land involving site discharge controls and structures, the type of subdivision available depends on the location and type of device. Torrens Title lots must have individual systems. Strata Title or Community Title subdivision is required for shared systems with the system being located in the common property. This is generally only a consideration when subdividing urban housing and dual occupancy development.

**Figure 4.1 - Typical storm flow hydrograph pre and post development (after Wong et al 2011).**
The permitted site discharge and site storage provisions given in this section are deemed to satisfy Council’s requirements for developments up to 5,000m² (as defined by the legal property description). For developments larger than this it will be necessary to undertake a more rigorous hydrologic and hydraulic assessment to demonstrate that the flooding and run off regime requirements are being satisfied. Please refer to Part 4b for further details on the requirements for large developments (ie. greater than 5,000m² as defined by the legal property description).

4.1 Rainwater tanks
4.2 Absorption trenches
4.3 On site retention (with sand filter)
4.4 Swales
4.5 Vegetated swales
4.6 Bioretention rain gardens
4.7 Bioretention swales
4.8 Porous paving
4.9 Sand filters within basins
4.10 Maintenance and signage
Small scale development (less than 5,000m²)

Will the development need to comply with BASIX?

Yes

Prepare a BASIX certificate (see www.basix.nsw.gov.au)

No

Ensure that integrated water management measures are implemented (Refer Part 4a)

How will the development achieve the stormwater quality and quantity targets outlined in Newcastle DCP 2012 Section 7.06?

Yes

Use the Stormwater Technical Manual to demonstrate compliance with the targets. (Refer Part 4a)

No

Selection of the appropriate control/s is a matter of choice for the applicant and will depend on the site constraints including aesthetics, serviceability and geotechnical issues.

Complete Water Management Plan and all relevant supporting documentation.

Submit documentation to Council

Figure 4.2 - Process flow chart – small scale development
4.1 Rainwater tanks

Rainwater tanks collect and store rainfall for later use. When designed appropriately, rainwater harvesting systems, such as tanks, slow and reduce runoff and provide a source of water for beneficial reuse within the development. These systems also help to reduce demands on increasingly limited water supplies.

4.1.1 Application

A rainwater tank is required in order to reduce mains water demand and to assist in minimising stormwater discharge from the site. They are to be implemented in accordance with the State Government BASIX requirement. In some cases a larger tank that will further reduce mains water demand, will be required. Overflows from the tank must be connected to other discharge controls, such as those outlined in this section of the technical manual (refer Figure 4.1.1).

NSW Health\(^1\) advises that reticulated potable mains water remains the most reliable source of drinking water. However, other uses can be connected to rainwater tanks provided the home owner is aware of the issues involved and makes a conscious decision to utilise more rain water. More information on the health issues associated with rainwater tanks is available from NSW Health.

NOTE: Tanks with a capacity of less than 10,000 litres may be installed without consent of Council within the following parameters as per the State Environmental Planning Policy (Exempt and Complying Development codes) 2008. Refer to http://www.austlii.edu.au/ for the full suite of circumstances applicable for rainwater tanks to be exempt development.

4.1.2 Source of water

Rainwater can be collected from most types of roofs provided they have not been painted with lead based paints or coated with bitumen based materials. Lead flashing should be avoided.

Roof material manufacturers can provide more information on the suitability of their products for collection of rainwater.

All tanks must be fitted with a first flush device to prevent contaminants fouling water and to prolong the life of the tank.

4.1.3 Size of tank

In general a rainwater tank with a minimum capacity of 4,000 litres per dwelling is required, however there are specific requirements for SEPP 14 wetland catchments in the Stormwater DCP 7.06.

All roof areas for proposed new works are to be connected to the rainwater tank. In some cases a larger tank that will further reduce mains water demand, will be required. Rainwater tanks come in many shapes and sizes and can be located above or below ground. There are also various options for re-use of the stored water, being indoor, outdoor or both.

Table 4.1 includes the water demands depending on the size of dwelling and the services that are connected. Tanks should have the ability to supply the demands a minimum of 60% using reclaimed rainwater. Shortfalls would be supplied by mains back up connections. Further additional capacity to supply demand above 60% delivers a lower dependence on mains water for the connected uses and is encouraged.

Table 4.1: Rainwater tank re-use demand

<table>
<thead>
<tr>
<th>No. of bedrooms¹</th>
<th>1 to 2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>1 to 2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toilet (25%)</td>
<td>31</td>
<td>44</td>
<td>57</td>
<td>71</td>
<td>46</td>
<td>66</td>
<td>86</td>
<td>106</td>
</tr>
<tr>
<td>Toilet + laundry (50%)</td>
<td>60</td>
<td>88</td>
<td>115</td>
<td>142</td>
<td>91</td>
<td>131</td>
<td>172</td>
<td>212</td>
</tr>
<tr>
<td>Toilet + laundry + hot water (90%)</td>
<td>110</td>
<td>159</td>
<td>206</td>
<td>256</td>
<td>164</td>
<td>237</td>
<td>309</td>
<td>384</td>
</tr>
<tr>
<td>Toilet + laundry + hot water + other (100%)</td>
<td>122</td>
<td>175</td>
<td>230</td>
<td>283</td>
<td>183</td>
<td>263</td>
<td>343</td>
<td>424</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Daily internal use in kilolitres (KL/day/dwelling)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of bedrooms¹</td>
</tr>
<tr>
<td>Toilet (25%)</td>
</tr>
<tr>
<td>Toilet + laundry (50%)</td>
</tr>
<tr>
<td>Toilet + laundry + hot water (90%)</td>
</tr>
<tr>
<td>Toilet + laundry + hot water + other (100%)</td>
</tr>
</tbody>
</table>

Note 1 - Assume 3 bedrooms for subdivision cases where actual bedrooms are unknown

Source: Using MUSIC in Sydney’s drinking water catchment, Sydney Catchment Authority 2012

The toilet cisterns, laundry tub and the washing machine taps should be connected to the tank using a separate reticulation system to that delivering the mains water. An external hose cock should also be connected to the tank. Connection to the hot water system and garden irrigation is required in SEPP 14 wetland catchments.

Rainwater tanks are not required for additions to existing houses, however, where tanks are provided; the volume of the tank can be used to offset any additional discharge control storage that may be required.

For commercial and industrial developments rainwater tanks should be sized using the demands of Table 4.1. The raintank shall be sized to supply the demands at a minimum of 70% of the time.

4.1.4 Mains backup

In order to ensure supply to the connected uses, there should be a float valve or solenoid connected to mains supply to maintain a minimum of 10% tank capacity. Other methods of ensuring supply are acceptable provided they meet Hunter Water Corporation approval.

Mains backup generally requires interconnection with Hunter Water Corporation mains and accordingly, must be installed by a licensed plumber to the relevant Australian Standards and Hunter Water Corporation’s requirements.
4.1.5 Back flow prevention

AS3500 and Hunter Water Corporation specify certain backflow prevention methods in order to ensure protection of the mains water supply. Please check with Hunter Water Corporation in regard to the interconnection issues.

4.1.6 Location of tanks

Tanks can be located above ground or below ground. The design of tanks should take into account aesthetic and open space considerations. In general, best results will be achieved where tanks are an integral designed component of the building, rather than as an additional feature at the end of the design stage.

4.1.7 Pumps

A demand pump will generally be required to supply tank water to the internal plumbing fixtures. Where external pumps are fitted, they should be housed in a sound proof housing designed for easy maintenance. Noise emitted from the pump should not exceed 5dB(A) above the ambient background noise level when measured at any property boundary. Pumps may be located internally in order to meet the noise criteria.

In some cases, it may be possible to integrate the tank into the design of the building, so that it gravity feeds to its intended uses and not require a further energy source for pumping.

4.1.8 Overflows

An overflow drain should be installed to the tank and connected directly to the conventional drainage system. Overflows should not be allowed to drip onto the ground at the site of the tank.

4.1.9 Materials

Tanks should be of a prefabricated form in a robust material designed for the storage of water. The tank should be able to withstand the effects of weathering and where appropriate, ground chemical attack.

*Figure 4.1.1 - Rainwater tank – one form of configuration.*
4.1.10 Maintenance and cleaning

Tanks may accumulate sediment from time to time and this will need to be removed periodically in order to keep the water clear. Tanks should be inspected for sludge every 2-3 years. If sludge is present, it may be removed by siphoning the bottom of the tank and disposing the water to garden or sewer.

Tanks should be fitted with appropriate mosquito proof mesh screens.

4.1.11 Further information

Further information on rainwater tanks can be found at:

- AS/NZS 3500.  
  Hunter and Central Coast Regional Environmental Management Strategy website  
- Hunter Water Corporation website  
- The Newcastle City Council website  

4.2 Absorption trenches

4.2.1 Application

Absorption trenches can be used to buffer the initial volume of rain falling on impervious areas of the site. Drainage from roof areas, driveways, parking and any other hard surfaces can be controlled. They are not intended to dispose of all stormwater and provision will need to be made for overflows. They differ from infiltration pits in that the rate of dispersal from absorption trenches is not capable of disposing of all peak rainfall events.

Absorption trenches will inject significant quantities of water into the ground, which may affect other properties due to changes in groundwater movements. Absorption trenches should only be used following appropriate geotechnical engineering advice where that advice shows the capacity for the soils to discharge water without detrimental effect to other properties. Likely issues include landslip potential, downstream seepage problems, structural footing damage due to reactive clay soils and salinity.

4.2.2 Overflow from rainwater tanks

Where the roof area of a proposed development is larger than the maximum roof area that can be directed to a rainwater tank, the difference in area can be treated in an absorption trench.
4.2.3 Volume

The trench should have a minimum void volume equal to the volume of storage required.

4.2.4 Pre-treatment

Absorption trenches are susceptible to blockages from fine sediments, litter and leaves. Any water originating from ground surfaces should be pre-treated in a sediment pit as shown in Figure 4.2.2. Grates should be provided across all inlet pits to ensure litter and leaves do not enter the system.

An appropriate screen should be placed across the outlet to the sediment pit to ensure no litter or leaves enter the absorption trench. Refer to Figure 4.2.2.

![Sample sediment trap detail](image)

**Figure 4.2.2 - Sample sediment trap detail**

4.2.5 Location of trenches

Absorption trenches should be located clear of any building footings, retaining walls and side property boundaries by a minimum of 4m. This may be reduced to 2m in sandy soils or less on favourable advice of a practicing geotechnical engineer. They should be installed across the contour of the land. Trenches may be installed under garden beds, lawns and courtyards. Attention may need to be given to the overflow drainage on the top surface of trenches, particularly in courtyard type areas to prevent the surface from becoming boggy. They are to be located in an area that it can be maintained or replaced, if needed. These are not to be located under driveways or parking areas.

In installations where the location of the entry pipe to the absorption trench will create a sealed air void, an air vent with an appropriate cover is to be provided.

A surface inlet pit is to be located at the pipe entry to the absorption trench.
A front boundary setback of 1.5m applies from the edge of the trench to the front boundary. The location of the absorption trench should not saturate services trenching located in the footpath area or saturate the verge area.

Trenches should not be located in rocky ground or on rock outcrops; they are generally not suitable in areas of slope of greater than 17% (10 degrees). Further advice on the location of trenches should be gained from a qualified professional geotechnical engineer.

4.2.6 Overflows

An overflow drain should be installed to the trench and connected directly to the conventional drainage system.

4.2.7 Materials

Efficient voids can be formed using proprietary products. These should be wrapped in permeable geofabric. Trenches may be filled with sand or double washed gravel provided that the fill material is the same size (road base or other graded material is not acceptable) and wrapped in a permeable geofabric. Filled trenches require a minimum volume of three times the volume required. Trenches in courtyard, lawn and garden areas should be covered with a 300mm thick layer of topsoil.

4.2.8 Maintenance and cleaning

Once established, access to absorption trenches is usually limited. This makes the provision of pre-treatment sediment pits essential. Sediment traps should be inspected and cleaned out on a regular basis, at least once per year.

Figure 4.2.3 - Efficient void formation
4.3 On site retention (with sand filter)

4.3.1 Application

On site retention (OSR) is similar to on site detention, except that the permissible outflow rate is substantially reduced. In order to compensate for this, storage is marginally increased over previous on site detention policies. On site retention by itself has no pollutant trapping capacity; however, the low outfall rates lend themselves to filtering through a small sand filter in order to polish the discharge and greatly assist in meeting Council’s site discharge water quality targets. In order to keep sand filters to a manageable size, the outfall rates have been reduced to give a total draw down time of 96 hours (4 days). A typical on site retention arrangement is presented in Figure 4.3.1.

![Figure 4.3.1 - On site retention with sand filter - typical arrangement](image)

4.3.2 Permissible site discharge

In order to sufficiently polish the discharge rate from an on site retention system in the Newcastle LGA should be less than $7.2 \times 10^{-3}$ litres per second per 100m$^2$ of contributing catchment. This can be achieved by using the sand filter as the flow control.

4.3.3 Site storage requirement

The on site retention system should have a volumetric capacity of more than the volume of storage requirement. The sand filter shall be sized based on 0.8m$^2$ per 100m$^2$ of contributing catchment.

4.3.4 Sediment control

The inherent stilling properties of on site retention systems mean that most suspended sediments are likely to drop out prior to discharge. For that reason, they should be designed with appropriate provision for flushing and cleaning. Where no such provision is made, a sediment trap as shown below should be provided upstream of the OSR system. Refer to Figure 4.3.2.
4.3.5 Location of storage

Due to the very low outfall rates, the on site retention system will fill to capacity at regular intervals. The draw down time will also be long (in the order of 4 days). It is therefore not acceptable to store the water in areas that are commonly used such as driveways, car parking areas and courtyards.

On site retention may be provided in underground tanks. These can be located under buildings, driveways, courtyards or any location within the development site subject to other constraints being met and adequate structural details provided. Any system using a ‘milk crate’ type chamber is to be located in an area that can be maintained, these are not to be located under driveways or parking areas.

4.3.6 Overflows

An overflow drain should be installed to the on site retention tank and connected directly to the conventional drainage system. The overflow drain should not be smaller than the drains leading into the system.

4.3.7 Materials

Where underground tanks are used they should be constructed of materials resistant to ground chemical attack, including low pH conditions.

The filter media is to be clean loamy sand in accordance with the *Guidelines for Filter Media In Biofiltration Systems* (2009) prepared by the Facility for Advancing Water Biofiltration (FAWB).

4.3.8 Sand level plate

A durable sign, made from etched brass and similar to the detail shown in Figure 4.3.3 should be installed on the inside wall of the sand filter to indicate its intended purpose and to mark the level to which sand should be placed.
4.3.9 Maintenance and cleaning

Where sediment pits are provided upstream of on site retention systems, they should be inspected and cleaned out on a regular basis, at least once per year.

Maintaining the flow through a sand filter relies on regular inspection and removal of the top layer of accumulated sediment. Inspections should be conducted after the first few significant rainfall events following installation and then at least every six months following. The inspections will help to determine the long term cleaning frequency for the sedimentation chamber and the surface of the sand media.

Removing fine sediment from the surface of the sand media can typically be performed with a flat bottomed shovel or vacuum machinery. Tilling below this surface layer can also maintain infiltration rates. Access is required to the complete surface area of the sand filter and this shall be considered during design.

Sediment accumulation in the sedimentation chamber needs to be monitored. Depending on catchment activities (e.g. building phase), sediment deposition can overwhelm the chamber, increase blinding of the device and reduce flow capacities.

Debris removal is an ongoing maintenance function. If not removed, debris can block inlets or outlets, and be unsightly if located in a visible location. Inspection and removal of debris / litter should be carried out regularly.

A Maintenance Manual for the sand filter is to be provided. The Manual is to address maintenance issues concerning the sand filter including routine monitoring and maintenance. Periodic monitoring and maintenance is to ensure the system functions as designed and meets water quality targets over the life cycle of the device.

Figure 4.3.3 - Typical sand level plate detail
4.4 Swales

4.4.1 Application

Swales are designed as temporary holding areas in landscaped garden beds and lawn areas. They allow rainfall to infiltrate into the soil. Swales can also be used to convey runoff to a destination.

4.4.2 Volume

Swales should be designed to retain at least the required volume of storage. The contributing catchment must include the area of the swale itself and any non-impervious areas that drain to it.

4.4.3 Dimensions

Swale dimensions can vary from site to site. The sample in this manual can be applied directly to a site; however applicants can vary the design to suit their circumstances provided that the basic volume objectives are met.

The sample swale shown on this page (Figure 4.4.1), when laid at a 1% grade and with 150mm high check dams at 15m spacings has a volume of 2.3m$^3$ per 15m segment.

![Sample swale dimensions](image)

*Figure 4.4.1- Sample swale dimensions*

4.4.4 Slope

Swales should be constructed near parallel to the contour. The longitudinal slope of the swale should be 1% or should fall 10mm for every metre of run.

4.4.5 Check dams

Check dams should be installed across the swale at regular intervals to increase the storage capacity. The height of the dams should be such that the base of the dam is level with the crest of the next downhill dam (refer Figure 4.4.2). This will depend on the dam spacing and the bed slope of the swale.
Raised driveways as per Figure 4.4.3 may also be used as check dams.

![Concrete check dam](image)

**Figure 4.4.2 - Longitudinal arrangement using concrete check dams**

**Figure 4.4.3 - Swale with driveway crossing**

### 4.4.6 Overflows

The downstream end of the swale should end in a check dam. Overflows will cascade from one dam to the next. The final dam should be positioned to overflow to Council’s drainage system or the interallotment drainage system as appropriate.

### 4.4.7 Materials

Swales should be excavated into the topsoil and turfed. Check dams can be formed from rock, concrete, garden edging or treated timber sleepers (refer Figure 4.4.2). Care should be taken during installation that swales are easily maintainable.

### 4.4.8 Maintenance

Turf swales should be designed to ensure access for maintenance equipment, such as mowers.
4.4.9 Further information

For further information on swales please refer to the following best practice guidelines:

  Section references:
  - 2.2. Design considerations for swales
  - 2.2.1 Landscape design
  - 2.2.3 Vegetation types
  - 2.4 Landscape design notes
  Section references:
  - 2.5 Landscape considerations and specifications

4.5 Vegetated swales

4.5.1 Application

Vegetated swales are similar to swales and can be used instead of pipes to convey stormwater and provide a ‘buffer’ between the impervious areas of a development and the receiving water. The key difference is that a vegetated swale may be used for steeper slopes with a maximum longitudinal grade of 4%. The interaction with vegetation facilitates an even distribution and slowing of flow, thus encouraging pollutant settlement and retention in the vegetation. A typical swale cross section is shown in Figure 4.5.1.

![Figure 4.5.1 - Typical vegetated swale](image)

4.5.2 Council's minimum requirements for vegetated swales

The minimum standards for vegetated swales are as follows:

- vegetated swales shall be sized according to the method in section 7.06 of the DCP
- the desirable maximum longitudinal grade of the swale is 4%
- the minimum longitudinal grade of the swale is 1%
- for longitudinal grades steeper than 4%, check dams (minimum 100mm high) are to be placed at regular intervals along the invert of the swale. The spacing of the check dams will depend on the grade of the swale (refer to Figure 4.4.2)
• swales can use a variety of vegetation including sedges and tufted grasses covering the whole width of the swale
• swales located within footpaths (i.e. road verges) must consider the standard location for services within the verge and ensure access for maintenance of services
• velocities of flows within the swale component for both minor (40-10% AEP) and major (5-1% AEP) rainfall events are to be kept preferably below 0.5m/s and not more than 2.0m/s (for major flooding) to avoid scouring of the swale
• depth x velocity products shall not exceed 0.4m²/s for all flows
• the extended detention depth above the base of the swale shall not exceed 0.3m
• driveway crossings constructed within swales at grade (refer Figure 4.4.3) shall be constructed at 1(V):6(H) and comply with Council’s driveway specification
• the maximum batter grade within the vegetated swale between roadways and the swale shall be 1(V):3(H) and the opposing side of the swale shall be 1(V):3(H)
• a concrete flush edge restraint 0.2m wide x 0.3m (min) deep shall be provided at the interface between the road pavement and the batter of the swale in areas adjoining roads (as per Figure 4.5.2). For concrete roads, the edge restraint shall be integrated into the concrete pavement. A 40mm drop down from the surface of the edge restraint to the top of the landscaping is to be provided to prevent material moving onto the road surface
• all hydro carbons are to be removed upstream of the vegetated swale by the use of grease traps, oil/water separators or similar devices
• all swales are to be designed so that they do not require fencing.

Figure 4.5.2 - Edge restraint
4.5.3 Water quality targets

The Water Quality Targets as described in Table 3: Section 7.06 ‘Controls’, 6. (f) of Newcastle Development Control Plan 2012 are to be achieved post construction for the life of the device.

4.5.4 Public safety issues

The following is to be considered relating to public safety:

(a) maximum water depth shall be 0.3m in the 1% AEP storm event

(b) maximum batter slopes should not exceed 1(V):3(H) or less

(c) swales should be designed so as not to require fencing

(d) the maximum velocity through the swale based on a 1 EY storm should not exceed 0.3m/s

(e) surface water flowing in swales shall not impact upon road or footpath areas. Formalised discharge controls shall be provided to convey water under roads at areas such as road crossings and intersections

(f) appropriate hazard signage shall be provided where required

(g) swales shall be designed so that no ponding of water occurs on adjacent property or roads.

4.5.5 Further information

For further information on vegetated swales please refer to the following best practice guidelines:

- Water Sensitive Urban Design Technical Design Guidelines for South East Queensland (South East Queensland Healthy Waterways Partnership, 2009)


4.6 Bioretention rain gardens

4.6.1 Application

Rain gardens (also known as bioretention or bioinfiltration cells) are shallow, vegetated basins that collect and absorb runoff from impervious surfaces. Rain gardens mimic natural hydrology by infiltrating and evapotranspiring runoff. Rain gardens are versatile features that can be installed in almost any unpaved space.

Planter boxes are another form of urban rain gardens and they comprise vertical walls and open or closed bottoms that collect and absorb runoff from footpaths, parking lots, and streets. Planter boxes are ideal for space-limited sites in dense urban areas and as a streetscaping element.
Table 4.7.1 shows the sizing scenarios that may be used to determine the size and location of a bioretention swale.

### Table 4.7.1 - sizing scenarios to determine the size and location of bioretention swales

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Catchment</th>
<th>Extended Detention Depth (mm)</th>
<th>Filter Depth (mm)</th>
<th>Side batters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Shallow bioretention rain garden or swale</td>
<td>All of site drains to bioretention rain garden or swale</td>
<td>100</td>
<td>300*</td>
<td>Vertical</td>
</tr>
<tr>
<td>2 Standard bioretention rain garden or swale</td>
<td></td>
<td>200</td>
<td>600*</td>
<td>1 (V) : 3 (H)</td>
</tr>
<tr>
<td>3 Shallow or standard bioretention rain garden or swale</td>
<td>10% of residential lot bypasses bioretention rain garden or catchment includes road or non-residential land uses</td>
<td>As required to meet the constraints of the site</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4.6.2 Materials

A rain garden is a soil-based filter that consists of a specified loamy sand filter, with a gravel trench underneath that contains a slotted drain pipe (e.g., pipe) that is connected to the drainage system. A typical system, looking through the side of the filter is shown below in Figure 4.6.2.

Rain gardens can be any shape to fit in with the remainder of the house and lot, as long as the area is consistent with the requirements set out in Table 4.6.2. For example, an 8m² system could be 4m long and 2m wide, or 8m long by 1m wide, or any other combination that gives the required size for the device relative to the site imperviousness.
Figure 4.6.2 - Sample drawings of bioretention rain gardens

TYPICAL BIORENTENTION SYSTEM DETAIL

TYPICAL SHALLOW BIORENTENTION SYSTEM DETAIL
Table 4.6.2 - Rain garden area specifications

<table>
<thead>
<tr>
<th>Site Imperviousness</th>
<th>Size of filter media footprint as a percentage of total site area excluding internal side batter slopes</th>
<th>1. Shallow</th>
<th>2. Standard</th>
<th>3. 10% of residential lot bypasses the rain garden or swale or catchment includes roads or non residential development</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td></td>
<td>0.7%</td>
<td>0.4%</td>
<td>1.0%</td>
</tr>
<tr>
<td>50%</td>
<td></td>
<td>0.7%</td>
<td>0.4%</td>
<td>1.0%</td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td>0.7%</td>
<td>0.4%</td>
<td>1.0%</td>
</tr>
<tr>
<td>70%</td>
<td></td>
<td>0.8%</td>
<td>0.5%</td>
<td>1.1%</td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td>1.0%</td>
<td>0.7%</td>
<td>1.3%</td>
</tr>
<tr>
<td>90%</td>
<td></td>
<td>1.2%</td>
<td>0.9%</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

4.6.3 Location

In ground rain gardens should be set back from any boundary, building or other infrastructure by a minimum of 2m for sandy soils (sands, loamy sands, loams) and 4m for clay soils (clay loams, medium clays, heavy clays) to minimise any problems from infiltration (unless demonstrated by a practicing structural engineer or geotechnical engineer that there is no risk to current or future infrastructure).

Where rain gardens are within areas of shallow groundwater tables, all assets are to be lined to prevent contamination of local groundwater sources unless it can be demonstrated that unlined systems will sufficiently protect groundwater quality.

Where constructed in sand, rain gardens should have the sides lined to prevent exfiltration.

As outlined above, as much of the site as possible should drain to the rain garden, including the overflow from the rainwater tank, so the rain garden should be at the lowest point on the property. Allowance should be made to drain the system to the stormwater drainage system outside the property, so it may be necessary to seek advice from a hydraulic engineer or other professional to determine the best location for the rain garden.

In some circumstances, it may be necessary to raise the rain garden to achieve the desired outcomes and grade of the collection pipe to the site discharge pipe. An example of a raised rain garden is shown in Figure 4.6.3.
4.6.4 Planting

Rain gardens should be densely planted with native species with high growth rates and dense root systems known to remove large amounts of nitrogen. For local plant selection and planting guidance please refer to Appendix 4.

4.6.5 Council’s minimum requirements for rain gardens

The minimum standards for rain gardens are as follows:

- The finished surface of the bioretention filter media must be flat to ensure full engagement of the filter media by stormwater flows.
- The extended detention depth above the filter media shall not exceed 0.3m.
- Where possible, the overflow pit or bypass channel should be located near the inflow zone to prevent high flows passing over the filter media.
- Include a high flow bypass for major storms where flows should be directed around the raingarden to avoid scouring the vegetated surface. If the constraints of the location preclude the ability to by-pass high flows then design calculations shall be undertaken to meet the following velocity criteria.
- Velocities of flows within the rain water garden during both the minor (40-10% AEP) and major (5-1% AEP) rainfall events are to be kept preferably below 0.5m/s and not more than 1.5m/s (for major flooding) to avoid scouring of the device.
- All inlet and outlet structures are to be designed to avoid blockages and ensure flow conveyance.
- An impermeable liner to the bioretention filter is to be provided in areas where the saturated hydraulic conductivity of the bioretention filter media is less than 10 times that of the native surrounding soils.
- The preferred vegetation for the bioretention component of bioretention trench is sedges and tufted grasses that do not require mowing.
- The base and walls of the filter media is to be lined with BIDIM A14 Geofabric.
• The volume of stormwater for treatment shall be sized according to the method in section 7.06 of the DCP.
• The filter media is to be clean loamy sand in accordance with the *Guidelines for Filter Media In Biofiltration Systems* (2009) prepared by the Facility for Advancing Water Biofiltration (FAWB).
• In accordance with FAWB, for biofiltration systems in a temperate climate the prescribed hydraulic conductivity will generally be between 100 – 300mm/hr in order to meet best practise water quality targets. In order to ensure that the system functions adequately at its eventual hydraulic conductivity, a safety factor of 2 should be used, i.e. designs should be modelled using half the prescribed hydraulic conductivity. Any variation from these standards is to be supported by comprehensive laboratory testing.
• The transition layer is to consist of coarse sand 0.1m in depth.
• The drainage layer is to be 0.15-0.2m in depth. Drainage material is to be clean, fine gravel, such as 2-5mm washed screenings.
• A network of 100mm subsoil pipes will be provided over the base of the filter, have flush out surface points with concrete surrounds and caps and be connected to a receiving pit.
• The maximum batter grade within the rain garden is to be 1(V):3(H).
• All Batters are to be constructed to reduce scouring and fully landscaped.
• Rain gardens are to be designed so they do not require fencing.
• Online upstream Gross Pollutant Traps are to be provided where appropriate. For example, downstream of commercial or industrial developments.
• A 40mm drop down from the surface of the edge of the rain water garden to the top of the select landscaping is to be provided to prevent material moving onto the adjoining surface.
• Where required, an overflow weir is to be provided with a minimum freeboard of 0.1m to the inlet of the receiving pit.
• All hydro carbons are to be removed upstream of the bioretention rain garden by the use of grease traps, oil/water separators or similar devices.
• Where required, a trafficable access is to be provided to the rain garden to council’s standards for maintenance purposes.
• Off street parking bay for the Council Maintenance Truck is to be provided within 1m horizontal distance and 2m vertical distance from the GPT, diversion pit and sediment bays to facilitate cleaning of these devices.

4.6.6 Maintenance

A Maintenance Manual for the rain water garden is to be provided. The Manual is to address maintenance issues concerning the rain water garden including routine monitoring and maintenance. Periodic monitoring and maintenance is to ensure the system functions as designed and meets water quality targets over the life cycle of the device.

4.6.7 Water quality targets

The Water Quality Targets as described in Table 3: Section 7.06 of Newcastle Development Control Plan 2012 are to be achieved post construction for the life of the device.

4.6.8 Deemed to comply requirements for SEPP 14 wetlands catchments

Other than for a single dwelling house with an allotment area less than 600m² an end of pipe bioretention system(s) is required which treats the entire runoff from the development in addition to the rainwater tank. An On-site Retention tank can be used in cases where bioretention is constrained in a development. The bioretention shall have the following parameters:
- A filter area which is 2.75% of the total impervious area within the development including all hard surfaces in the catchment draining such as roofs, driveways, paved areas, footpaths, roads, etc
- A minimum of 500mm depth of free draining bioretention system filter media
- An unlined saturated zone at the base of the bioretention zone which contains at least 400mm depth below the free draining portion of the bioretention system (i.e. a minimum total depth of all media in the bioretention system of 900mm, consisting of a minimum 500mm free draining material and a minimum of 400mm saturated material). This media can consist of the transition layer and gravel
- A total phosphorous content less than 30 mg/kg for any media (filter, transition or drainage layer) placed in the bioretention system
- A pump offtake pit is to be provided for potential reuse by Council where the bioretention is located in public land. The pump pit must allow draining of the entire saturated zone of the bioretention system and is to be easily accessible by a small maintenance vehicle.

4.6.9 Public safety issues

Design is to consider the following aspects relating to public safety:

(a) Maximum water depth shall be 0.4m in the 1% AEP storm event.
(b) The rain garden should have batter slopes of 1(V):3(H) or less.
(c) The rain garden should be designed so as not to require fencing.
(d) The maximum velocity through the pond based on a 1 EY storm should not exceed 0.3m/s.
(e) A minimum freeboard of 0.1m should be provided between a restricted discharge outlet for the ponding area and a storm overflow weir. This discharge outlet should be designed so that the weir overtops on average not more than four times per year.
(f) All inlet outlet structures are to be designed to avoid blockages and ensure flow conveyance.
(g) Appropriate hazard signage shall be provided for the rain garden and weir spillway if required.
(h) Protection of the receiving pit shall be provided to prevent blockage and to prevent the risk of people being trapped.
(i) Rain gardens shall be designed so that no ponding of water occurs on to adjacent property or roads.

4.6.10 Further information

For further information on rain gardens please refer to the following best practice guidelines:
  Section references:
  - 5.4 Landscape design notes
• Construction and Establishment Guidelines: Swales, Bioretention Systems and Wetlands Version 1.1 (South East Queensland Healthy Waterways Partnership, 2010)  
Section references:  
− 3.1 Bioretention systems  
− 3.6 Landscape considerations and specifications  
− 3.9.3 Landscape establishment  

4.7 Bioretention swales

4.7.1 Application

Bioretention swales are shallow, vegetated basins that collect and absorb runoff from impervious surfaces. Bioretention systems filter stormwater runoff through a vegetated soil media layer. The treated stormwater is collected at the base of the system via perforated pipes, from where it flows to downstream waterways, constructed drainage or storages for reuse. Bioretention swales are very similar to rain gardens.

Table 4.7.1 shows the sizing scenarios that may be used to determine the size and location of a bioretention swale.

Table 4.7.1 - Bioretention swale scenarios

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Catchment</th>
<th>Extended Detention Depth (mm)</th>
<th>Filter Depth (mm)</th>
<th>Side batters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shallow bioretention rain garden or swale</td>
<td>All of site drains to bioretention rain garden or swale</td>
<td>100</td>
<td>300*</td>
</tr>
<tr>
<td>2</td>
<td>Standard bioretention rain garden or swale</td>
<td>200</td>
<td>600*</td>
<td>1 (V) : 3 (H)</td>
</tr>
<tr>
<td>3</td>
<td>Shallow or standard bioretention rain garden or swale</td>
<td>10% of residential lot bypasses bioretention rain garden or catchment includes road or non-residential land uses</td>
<td>As required to meet the constraints of the site</td>
<td></td>
</tr>
</tbody>
</table>

4.7.2 Materials

A bioretention swale is a soil-based filter that consists of a specified loamy sand filter, with a gravel trench underneath that contains a slotted drain pipe (ag pipe) that is connected to the drainage system. Bioretention swales must be sized in a manner that is consistent with the requirements set out in Table 4.7.2.
A typical system, looking through the side of the filter is shown below in Figure 4.7.2.

Table 4.7.2 - Bioretention filter media area specification

<table>
<thead>
<tr>
<th>Site Imperviousness</th>
<th>Size of filter media footprint as a percentage of total site area excluding internal side batter slopes</th>
<th>1. Shallow</th>
<th>2. Standard</th>
<th>3. 10% of residential lot bypasses the rain garden or swale or catchment includes roads or non residential development</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td>0.7%</td>
<td>0.4%</td>
<td>1.0%</td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td>0.7%</td>
<td>0.4%</td>
<td>1.0%</td>
<td></td>
</tr>
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<td></td>
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<td>0.8%</td>
<td>0.5%</td>
<td>1.1%</td>
<td></td>
</tr>
<tr>
<td>80%</td>
<td>1.0%</td>
<td>0.7%</td>
<td>1.3%</td>
<td></td>
</tr>
<tr>
<td>90%</td>
<td>1.2%</td>
<td>0.9%</td>
<td>1.5%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.7.2 - Typical bioretention swale cross section for a standard bioretention swale
4.7.3 Location

Bioretention swales should be set back from any boundary, building or other infrastructure by a minimum of 2m for sandy soils (sands, loamy sands, loams) and 4m for clay soils (clay loams, medium clays, heavy clays) to minimise any problems from infiltration (unless demonstrated by a practicing structural engineer or geotechnical engineer that there is no risk to current or future infrastructure).

Where located within areas of shallow groundwater tables, all assets are to be lined to prevent contamination of local groundwater sources unless it can be demonstrated that unlined systems will sufficiently protect groundwater quality.

Where constructed in sand, bioretention swales should have the sides lined to prevent exfiltration.

As outlined above, as much of the site as possible should drain to the device, including the overflow from the rainwater tank, so the device should be at the lowest point on the property. Allowance also has to be made to drain the system to the stormwater drainage system outside the property, so it may be necessary to seek advice from a hydraulic engineer or other professional to determine the best location.

4.7.4 Planting

Bioretention swales should be densely planted with native species with high growth rates and dense root systems known to remove large amounts of nitrogen. For local plant selection and planting guidance please refer to Appendix 4.

4.7.5 Council’s minimum requirements for bioretention swales

The minimum standards for bioretention swales are as follows:

- The desirable maximum longitudinal grade of the swale is 4% and bioretention should be constructed in a flat section of the swale to ensure filtration of stormwater. This can be achieved with check dams providing some extended detention of the stormwater in conveyance or preferably in the most downstream extent of the swale.
- Bioretention is not suitable underneath any rock lined parts of a swale.
- An impermeable liner to the bioretention filter is to be provided in areas where the saturated hydraulic conductivity of the bioretention filter media is less than 10 times that of the native surrounding soils.
- The preferred vegetation for the bioretention component of bioretention trench is sedges and tufted grasses (with potential occasional tree plantings) that do not require mowing.
- Bioretention trenches located within footpaths (ie. road verges) must consider the standard location for services within the verge and ensure access for maintenance of services.
- Velocities of flows within the swale component for both minor (40-10% AEP) and major (5-1% AEP) rainfall events are to be kept preferably below 0.5m/s and not more than 2.0m/s (for major flooding) to avoid scouring of the swale.
- The extended detention depth above the filter media shall not exceed 0.3m.
- The depth of the filter media is to be 0.6m.
- The bioretention filter media is to be clean loamy sand in accordance with the Guidelines for Filter Media In Biofiltration Systems (2009) prepared by the Facility for Advancing Water Biofiltration (FAWB).
- In accordance with FAWB, for biofiltration systems in a temperate climate the prescribed hydraulic conductivity will generally be between 100 – 300mm/hr in order to meet best practise water quality targets. In order to ensure that the system functions adequately at its eventual hydraulic conductivity, a safety factor of 2 should be used, ie. designs should be modelled...
using half the prescribed hydraulic conductivity. Any variation from these standards is to be supported by comprehensive laboratory testing.

- The transition layer is to consist of coarse sand 0.1 in depth.
- The drainage layer is to be 0.15-0.2m in depth and consist of clean, fine gravel, such as 2-5mm washed screenings.
- The total depth of the filter media, transition layer and drainage layer shall be 1.0m in accordance with the *Guidelines for Filter Media In Biofiltration Systems* (2009) prepared by the Facility for Advancing Water Biofiltration (FAWB).
- A 100mm diameter slotted agricultural pipe is to be installed at the base of the drainage layer. Inspection opening / cleanouts with inspection caps are to be provided at 30m centers and at the upstream terminal point of the pipe. The outlet end of the pipe is to be connected to a drainage pit or outlet structure.
- The transition layer is to consist of coarse sand 0.1 in depth.
- The drainage layer is to be 0.15-0.2m in depth and consist of clean, fine gravel, such as 2-5mm washed screenings.
- The total depth of the filter media, transition layer and drainage layer shall be 1.0m in accordance with the *Guidelines for Filter Media In Biofiltration Systems* (2009) prepared by the Facility for Advancing Water Biofiltration (FAWB).
- A 100mm diameter slotted agricultural pipe is to be installed at the base of the drainage layer. Inspection opening / cleanouts with inspection caps are to be provided at 30m centers and at the upstream terminal point of the pipe. The outlet end of the pipe is to be connected to a drainage pit or outlet structure.
- The trench is to be underlain by geotextile on sides and base and lapped to new surface by a minimum of 300mm with BIDIM A14 Geofabric.
- The maximum batter grades within the swale shall be 1(V):3(H) and vegetated with native vegetation.
- Depth x velocity products shall not exceed 0.4m²/s for all flows.
- A concrete flush edge restraint 0.2m wide x 0.3m (min) deep shall be provided at the interface between the road pavement and the batter of the trench in areas adjoining roads (refer Figure 4.5.2). For concrete roads, the edge restraint shall be integrated into the concrete pavement. A 40mm drop down from the surface of the edge restraint to the top of the select landscaping is to be provided to prevent material moving onto the road surface.
- All hydro carbons are to be removed upstream of the bioretention swale by the use of grease traps, oil/water separators or similar devices.
- All bioretention devices are to be designed so that they do not require fencing.
- A driveway crossing constructed within bioretention swales at grade (refer Figure 4.4.3) shall be constructed at 1(V):6(H) and comply with Council’s driveway specification.

### 4.7.6 Maintenance

A Maintenance Manual for the bioretention device is to be provided. The Manual is to address maintenance issues concerning the bioretention device including routine monitoring and maintenance. Periodic monitoring and maintenance is to ensure the system functions as designed and meets water quality targets over the life cycle of the device.

### 4.7.7 Water quality targets

The Water Quality Targets as described in Table 3: Section 7.06 ‘Controls’, 6. (f) of Newcastle Development Control Plan 2012 are to be achieved post construction for the life of the device.

### 4.7.8 Public safety issues

The following is to be considered relating to public safety:

(a) maximum water depth shall be 0.3 m in the 1% AEP storm event
(b) maximum batter slopes should not exceed of 1(V):3(H) or less
(c) trenches should be designed so as not to require fencing
(d) the maximum velocity through the pond based on a 1 EY storm should not exceed 0.3m/s
(e) surface water flowing in bioretention trenches shall not impact upon road or footpath areas. Formalised discharge controls shall be provided to convey water under roads at areas such as road crossings and intersections

(f) appropriate hazard signage shall be provided where required

(g) bioretention trenches shall be designed so that no ponding of water occurs on to adjacent property or roads.

4.7.9 Further information

For further information on bioretention swales please refer to the following best practice guidelines:

  Section references:
  - 5.4 Landscape design notes
  Section references:
  - 3.1 Bioretention systems
  - 3.6 Landscape considerations and specifications
  - 3.9.3 Landscape establishment

4.8 Porous paving

4.8.1 Application

Porous paving and permeable pavements are an alternative to traditional impervious hard surfaces, such as driveways, roads, car parks and footpaths. Porous paving is not in itself a site discharge control because it does not treat runoff from another surface. They can be used to reduce the overall impervious surface that is directly connected to the constructed drainage system. It is not necessary to treat runoff from a porous paving system through site discharge controls.

4.8.2 Materials

There are a range of porous paving products on the market. In order that they can be considered for use on a development site, the selected paving must be capable of: Dispersing vertical load to the subgrade without excessive deflection or damaging the subgrade or pavement itself. In general, porous paving will not be suitable for high traffic areas including public road surface.

Retaining the volume requirement (mm) of rainfall without expunging runoff. This will mean a typical thickness of about three times the volume requirement.
4.8.3 Slope

Porous paving is not suitable for slopes in excess of 5% (ie. 50mm fall per metre of run).

The porous paving area is to drain surface water in all events such that the time of infiltration of the stormwater to the drainage layer shall not lead to excessive retention of surface water.

4.8.4 Overflows

It will be necessary to drain the surface of any porous paving system in a conventional manner. Overflows from porous paving can be connected directly to Council’s drainage system.

4.8.5 Under pavement drainage

All porous paving areas are to be provided with an under drainage cell system to the full extent of the paving (refer to Figure 4.8.2). The under drainage system shall be connected to the sites discharge controls, with the site discharge controls further connecting to Council’s drainage system.

Typically, porous paving shall consist of a porous paving layer, a minimum 100mm thick pervious bedding layer and a under drainage system. The under drainage system shall be fully lined and over lapped with pervious geofabric.
The subgrade of the porous paving area shall be compacted with regard to the proposed vertical loading of the area.

![Diagram of a typical permeable paving system]

**Figure 4.8.2 - Preferred configuration for paving**

### 4.8.6 Maintenance

A Maintenance Manual for the porous paving is to be provided. The Manual is to address maintenance issues concerning the paving including routine monitoring, cleaning and maintenance. The pores of the system can become blocked or blinded reducing its ability to transfer water through the system. Periodic monitoring and maintenance is to ensure the system functions as designed and meets water quality targets over the life cycle of the device.
4.9 Sand filters within basins

4.9.1 Application

Sand filters operate in a similar manner to bioretention systems, with the exception that stormwater passes through a filter media (typically sand) that has no vegetation growing on the surface. Sand filters do not incorporate vegetation because the filter media does not retain sufficient moisture to support plant growth and they are often installed underground (therefore light limits plant growth). The absence of vegetation and the associated biologically active soil layer typically created around the root zone of vegetation planted in bioretention systems, means sand filters have a reduced stormwater treatment performance compared to bioretention systems.

Sand filters should only be considered where site conditions, such as space or drainage grades, limit the use of bioretention systems. This is most likely related to retrofit situations where the surrounding urban environment is already developed. Treatment can then be achieved underground with sand filters, in areas such as high density developments with little or no landscape areas. Their lack of vegetation requires more regular maintenance than bioretention systems to ensure the surface of the sand filter media remains porous and does not become clogged with accumulated sediments. This typically involves regular inspections and routine removal of fine sediments that have formed a ‘crust’ on the sand filter surface.

Prior to entering a sand filter, flows must be subjected to pretreatment to remove litter, debris and coarse sediments. Following pre-treatment, flows are spread over the sand filtration media and water percolates downwards and is intercepted by perforated pipes located at the base of the sand media. The perforated pipes collect treated water for conveyance downstream. During higher flows, water can pond on the surface of the sand filter increasing the volume of water that can be treated. Very high flows are diverted around sand filters to protect the sand media from scour.

Figure 4.9.1 - Sand filter within basin
4.9.2 Council’s minimum requirements

The minimum standards for sand filters within basins are as follows:

- the sand filter shall be sized based on 0.8m³ per 100m² contributing catchment
- the time of mean filtration shall be 24 hours and no longer than 48 hours
- the desirable water storage depth of the basin is to be 0.5m
- the minimum depth of the filter media in the filter is to be 0.4m
- the filter media is to be clean loamy sand in accordance with the Guidelines for Filter Media In Biofiltration Systems (2009) prepared by the Facility for Advancing Water Biofiltration (FAWB)
- in accordance with FAWB, for biofiltration systems in a temperate climate the prescribed hydraulic conductivity will generally be between 100 – 300mm/hr in order to meet best practise water quality targets. In order to ensure that the system functions adequately at its eventual hydraulic conductivity, a safety factor of 2 should be used, ie. designs should be modelled using half the prescribed hydraulic conductivity. Any variation from these standards is to be supported by comprehensive laboratory testing
- the maximum batter grade within the basin is to be 1(V):6(H)
- batters are to be constructed to reduce scouring and preferably landscaped
- the sand filter and associated detention basin is to be designed so that the basin does not require fencing
- an online upstream Gross Pollutant Trap is to be provided
- a concrete level spreader with letter box dispersion and energy reduction devices are to be supplied at the pipe outlet to the basin. The width of the level spreader is to be 10 x the diameter of the outlet pipe and at least 5m in length. A gabion mattress is to adjoin the level spreader device to prevent scouring of the area
- a settlement basin is to be provided to receive the stormwater from the level spreader and is to be constructed at the basin depth. The settlement basin is to be constructed out of concrete
- a network of 100mm subsoil pipes located within a drainage layer minimum of 150 - 200mm thick, will be provided over the base of the filter, have flush out surface points with concrete surrounds and caps and be connected to a receiving pit
- an overflow weir is to be provided with a minimum freeboard of 0.1m to the inlet of the receiving pit
- a trafficable access is to be provided to the detention basin, settlement area and sand filter to council’s standards
- off street parking bay for the Council Maintenance Truck is to be provided within 1m horizontal distance and 2m vertical distance from the GPT, diversion pit and sediment bays to facilitate cleaning of these devices.

4.9.3 Maintenance

Maintaining the flow through a sand filter relies on regular inspection and removal of the top layer of accumulated sediment. Inspections should be conducted after the first few significant rainfall events following installation and then at least every six months following. The inspections will help to determine the long term cleaning frequency for the sedimentation chamber and the surface of the sand media.

Removing fine sediment from the surface of the sand media can typically be performed with a flat bottomed shovel or vacuum machinery. Tilling below this surface layer can also maintain infiltration rates. Access is required to the complete surface area of the sand filter and this shall be considered during design.
Sediment accumulation in the sedimentation chamber needs to be monitored. Depending on catchment activities (e.g., building phase), sediment deposition can overwhelm the chamber, increase blinding of the device and reduce flow capacities.

Debris removal is an ongoing maintenance function. If not removed, debris can block inlets or outlets, and be unsightly if located in a visible location. Inspection and removal of debris/litter should be carried out regularly.

A Maintenance Manual for the sand filter is to be provided. The Manual is to address maintenance issues concerning the sand filter including routine monitoring and maintenance. Periodic monitoring and maintenance is to ensure the system functions as designed and meets water quality targets over the life cycle of the device.

4.9.4 Water quality targets

The Water Quality Targets as described in Table 3: Section 7.06 ‘Controls’, 6. (f) of Newcastle Development Control Plan 2012 are to be achieved post construction for the life of the device.

4.9.5 Public safety issues

Basin design is to consider the following aspects relating to public safety.

(a) The basins should have batter slopes of 1(V):6(H) or less
(b) The basin should be designed so as not to require fencing
(c) The maximum velocity through the pond based on a 1 EY storm should not exceed 0.3m/s
(d) Freeboard of 0.1m should be provided between a restricted discharge outlet for the pond and an overflow weir. Width of weir is to be designed so flows over the weir comply with a vds≤0.36m2/s (in accordance with Section 3.1.3 of the Technical Manual) and a depth of no greater than 0.3m
(e) Inlet and outlet structures should be located at extreme ends of the basin, with short-circuiting of flow further minimized by the use of baffles
(f) Where necessary, depth indicators shall be provided indicating maximum depth in the basin and spillway
(g) Where necessary, appropriate hazard signage shall be provided for the basin and spillway
(h) Protection of the receiving pit shall be provided to prevent blockage and to prevent the risk of people being trapped
(i) Basins shall be designed so that no ponding of water occurs on to private property or roads
(j) No basin shall be located upstream of an urban area.
4.9.6 Further information

For further information on sand filters within basins please refer to the following best practice guidelines:


4.10 Maintenance and signage

4.10.1 Marker plates – all on-site storage systems

Each on-site stormwater detention systems shall be indicated on site by fixing a marker plate or sign in a prominent position. This plate is to be of minimum size 150mm x 100mm and is to be made from non-corrosive metal or 4mm thick laminated plastic. It is to be fixed to the nearest concrete or permanent surface or erected on a galvanised iron pole and footing in a prominent position. The wording on the marker plate is to be:
Figure 4.10.1 - Proposed wording for marker plate

THIS IS AN
ON-SITE STORMWATER
STORAGE SYSTEM

REQUIRED BY NEWCASTLE CITY COUNCIL

IT IS AN OFFENCE TO REDUCE THE VOLUME OF THE TANK OR BASIN OR TO INTERFERE WITH THE ORIFICE THAT CONTROLS THE OUTFLOW.

THE BASE OF THE OUTLET CONTROL PIT AND THE DEBRIS SCREEN MUST BE CLEANED OF DEBRIS AND SEDIMENT ON A REGULAR BASIS BY THE OWNER

THIS PLATE MUST NOT BE REMOVED
Part 4b  Site Discharge Controls – large scale development (greater than 5,000m$^2$)

This section of the technical manual assists with all development applications where the area identified by the legal property description is greater than 5,000m$^2$ lodged with Newcastle City Council within all development zones within the Newcastle LGA.

4.11 Applicability

4.12 Specialist advice

4.13 Process flow chart

4.14 Stormwater targets

4.15 Stream Erosion Index (SEI)

4.16 Satisfying objectives for SEPP 14 Wetlands

4.17 Modelling guidelines for developments larger than 5,000m$^2$

4.18 Maintenance
4.11 Applicability

In accordance with the size threshold identified in DCP 7.06, proposed development cannot be broken into stages so that each stage is less than 5,000m², the proposed treatments are required to address the entire development when fully operational.

This section will provide an outline of the requirements that relate to large developments in accordance with the controls established through DCP 7.06. This section will not provide additional commentary or details on the site discharge controls detailed in Part 4a of this manual and additional site discharge control requirements are included in Part 4c for larger devices.

Specifically, these requirements include the following:

- It will be necessary to undertake a more rigorous hydrologic and hydraulic assessment to demonstrate that the flooding and run off regime requirements and hydrology objectives for those catchments draining to SEPP 14 wetlands identified in the DCP are being satisfied.
- It will also be necessary to undertake a more rigorous modelling assessment to demonstrate that the pollutant reduction targets identified in the DCP will be met using a MUSIC link model.

Refer to Appendix 2 for a map showing relevant catchment areas relating to MUSIC link nodes and the SEPP 14 catchment.

4.12 Specialist advice

Applicants will need to have regard to the size and complexity of the proposed development when selecting specialist consultants. For large scale developments a justified WSUD strategy and appropriate development application documentation will be required and should be prepared by appropriately qualified and experienced practitioners.

For any development where infrastructure is proposed to be constructed and later contributed to Council, applicants are encouraged to discuss development proposals with Council’s Development Assessment staff through a pre-lodgement meeting.

Applicants and developers are encouraged to employ the services of appropriately qualified and experienced practitioners, for example stormwater/environmental engineer or hydrologist for the development of appropriate WSUD plans and strategies. The involvement of consultants with demonstrated capacity to fulfil the requirements of Council’s DCP will generally contribute to a smoother and more straightforward approval and consultation process.

Prior to commencing planning for a large development please consider the need to contact Council. Council will be able to provide examples of acceptable stormwater management strategies and development application documentation relating to the project, including WSUD elements.

4.13 Process flow chart

4.13.1 How to apply this section of the technical manual in relation to the DCP

Figure 4.b.1 shows how to apply this section of the technical manual in relation to the DCP and the relevant best practice guidelines.
Figure 4.b.1 - Process flow chart for large development

1. Identify water quality and quantity targets (Refer to DCP Section 7.06)
2. Consider meeting with Council to discuss application (Refer to Part 4b)
4. Will the development need to comply with BASIX or NABERS?
   - BASIX: Prepare a BASIX certificate (see www.basix.nsw.gov.au)
   - NABERS: Undertake NABERS rating (see www.nabers.gov.au)
5. If the development is located in the SEPP14 wetland catchment area refer to Section 4.16 for guidance on how to meet the DCP requirements outlined in Section 7.06 of the DCP.
6. Undertake detailed hydrologic and hydraulic assessment to ensure requirements of the DCP are being met
7. Undertake detailed MUSIC modelling to identify that the pollutant reduction targets of the DCP are being met
8. Selection of stormwater controls and WSUD elements to suit particular constraints of the proposed development
10. Complete detailed assessment to comply with DCP Section 7.06 targets
11. Complete Water Management Plan
12. Submit documentation to Council
4.14 Stormwater targets

4.14.1 DCP 7.06 Stormwater quality and quantity targets

Newcastle City Council’s stormwater pollution reduction and stormwater quantity targets have been established through DCP 7.06 (refer to Table 3 in DCP 7.06). For large development, these targets can be met through stormwater treatment systems, such as bioretention systems, swales and wetlands, which can be incorporated into public open space, streetscapes, or on lots. Details of other devices are also included under Sections 4a and 4c of this manual.

4.15 Stream Erosion Index (SEI)

The preferred method for determining the SEI is based on a magnitude of flow and flow duration method due to the tendency for the other method to underestimate erosion.

4.15.1 Modelling

The SEI is to be determined through continuous rainfall runoff simulation modelling software such as MUSIC or approved equivalent.

1. Rainfall gauge, time step and modelling period

The modelling shall be undertaken at a 6 minute time step using pluviograph data from the Williamtown rain gauge over the time period 1/1/2002 – 31/12/2006 as a minimum.

2. Soil store parameters

When selecting soil store parameters, the modeller should select values that represent the local soil conditions, bearing in mind that Newcastle is situated across areas of loamy clays and areas of sandy soils. Source nodes have been created in MUSIC link to guide the selection of appropriate soil store parameters depending on the location within the Newcastle LGA. Refer to Appendix 2 and MUSIC link for details.

3. Node, link and treatment train set up

Continuous hydrologic models are to be established for the predevelopment scenario and the developed scenario with the selected treatment train and discharge control measures in place.

Link routing between source nodes and receiving nodes is recommended for large catchments where the time of concentration is greater than 6 minutes. It may be useful to split a large natural catchment into several subcatchments. The same approach to routing developed subcatchments should be followed for an accurate comparison.

4. Stream forming flow

The Stream Forming Flow is expressed as a fraction of the 40% AEP pre development flow for the following catchments:

<table>
<thead>
<tr>
<th>Catchment</th>
<th>Stream Forming Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>All areas of Newcastle</td>
<td>0.5 x 40% AEP (2 year ARI) pre development</td>
</tr>
</tbody>
</table>

The 40% AEP predevelopment flow rate can be calculated by the following means.
5. Hydrologic modelling

The 40% AEP pre development is best selected from a continuous time series hydrograph output using partial flood series approach as described in Australian Rainfall and Runoff.

For a 6 year simulation, the Q 40% AEP (2 year ARI flow) pre development should occur approximately 3 times across the modelling period. Longer simulation periods will give more accurate estimates of results.

Figure 4.b.2 – An estimate of the 40% AEP is represented by the red dashed line on the continuous hydrograph

Please note that flood modelling hydrologic software (RORB, RAFTS, WBNM, etc) may produce a different estimate of 40% AEP pre development to the partial flood series approach due to differences in the assumptions behind rainfall patterns. It is recommended that the same software be used to calculate the 40% AEP pre development as is used to design the stormwater quality management treatment train.

6. Calculating SEI

The SEI is a dimensionless metric that represents the ratio of post development flows to predevelopment flows above the stream forming flow.

The method of calculation adopted by Newcastle Council represents the frequency, flow duration and flow rate of run off that exceeds the stream forming flow rate.

The SEI shall be calculated as follows:

\[
SEI = \frac{\text{Sum of all post development flows exceeding the stream forming flow}}{\text{Sum of all pre development flows exceeding the stream forming flow}}
\]
This can be calculated by:

i) Exporting the entire pre development and post development hydrographs to MS Excel at a 6 minute time step. Please note, the processing of results becomes laboured for continuous 6 minute hydrographs that are longer than 6 years in duration.

ii) Using a generic node in MUSIC to “clip off” all flows less than the stream forming flow and using the internal MUSIC function to tally and average the resultant runoff volume over the simulation period.

7. Reporting on SEI

When reporting on SEI, a summarised table of adopted modelling parameters shall be provided to Council with Development Application documentation.

4.16 Satisfying objectives for SEPP 14 Wetlands

The proposed approach for stormwater management solutions for catchments draining to SEPP 14 wetlands is to provide a site specific solution for all large scale development with supporting MUSIC modelling and hydrology analysis. This can be achieved using the methods below for meeting the hydrology objectives of the DCP:

1. Deemed to comply - a prescribed solution that can be used to inform certain aspects of the site specific approach

To meet the hydrology objectives for development draining to SEPP14 wetlands a deemed to comply solution has been developed. For the majority of developments, particularly those on low permeability clay soils and without access to high non-potable demands, this deemed to comply approach can be adopted and is outlined by the rainwater tank sizing in the Stormwater DCP 7.06, and the inclusion of site discharge controls that consist of either an on-site retention system (Section 4.3) or a bioretention system (Section 4.6.8).

2. Site specific - a tailored solution requiring a detailed MUSIC model and hydrology analysis in a spreadsheet to demonstrate that the site specific approach meets the hydrology objectives

For a number of developments, such as developments on higher permeability sandy soils, developments with a high non-potable water demand or high density developments, an alternate strategy which meets the objectives should be considered. A tailored strategy for these development is recommended to be considered, but is not required. Guidance is provided for this in the following section. Note that a deemed to comply solution is still acceptable in all instances.

The key attributes of wetland hydrology are expressed in two indices that can be calculated relatively simply for pre and post development catchment conditions. These two indices include the high and low flow duration frequency curves. Details of these indices and a procedure for their calculation are described below.

Drying and flooding hydrology are defined by the following parameters:

1. Drying hydrology: Low Flow Duration Frequency Curve for the September-February period (this period has been identified as the critical wetland drying period in Newcastle, as on average, potential evapotranspiration exceeds rainfall during these months)

2. Flooding hydrology: High Flow Duration Frequency Curve for the entire year
Low and High Flow Duration Frequency Curves are produced for a particular “reference duration”. These parameters are described in detail in the following sections, including information on how to produce the curves.

**Low Flow Duration Frequency Curve**

The low flow duration frequency curve is based on the average daily flow over 30 days for SEPP14 Wetlands in the Newcastle LGA. This duration has been selected to reflect the natural periods over which wetting and drying cycles occur. For the key period of interest (i.e., September – February which is the key dry season), the lowest average flow over the 30 day duration is identified during this period and the annual values are ranked, and plotted against the exceedance probability.

The low flow duration frequency curve is produced by the following steps:

1. Run MUSIC at a six minute time step for three scenarios:
   - Pre development. The pre-development scenario must consist of 100% pervious catchment node.
   - Post development without mitigation.
   - Post development with proposed mitigation measures.
2. For all scenarios adopt the MUSIC-Link soil parameters for the particular catchment area.
3. MUSIC is to be run for the following 10 year period from 1/1/1999 to 31/12/2008 using the 61078 Williamtown Pluviograph.
4. Export the results from MUSIC at the outlet (“receiving water” node) into a daily flow time series.
5. For each daily time step, calculate the average flow for the previous 30 days.
6. For the period September to February, determine the minimum average flow (one value each year).
7. Rank the minimum average flows from highest to lowest and plot a probability distribution curve.

An example of two low flow duration frequency curves is shown in Figure 4.16.1. This was produced for a 30 day reference duration, for a hypothetical 10ha catchment before and after development (without any measures to mitigate hydrological impacts). Figure 4.16.1 shows, for example:

- Before development, the average 30 day flow reaches a value greater than 10m$^3$/day in only 10% of all dry seasons.
- After development, the average 30-day flow reaches a value greater than 10m$^3$/day in 60% of all dry seasons (a significant change).
High Flow Duration Frequency Curve

The high flow duration frequency curve is based on the average daily flow over a 7 day period. The high flow duration is produced for the entire year (as a flood event can occur at any time of the year). The highest average 7 day flow is identified for each year and these are plotted against exceedance probability.

The high flow duration frequency curve is produced via a similar method to the low flow duration frequency curve, and Steps 1 to 5 are identical:

1. Run MUSIC at a six minute time step for three scenarios:
   - pre development. The pre-development scenario must consist of 100% pervious catchment node.
   - post development without mitigation.
   - post development with proposed mitigation measures
2. For all scenarios adopt the MUSIC-Link soil parameters for the particular catchment area
3. MUSIC is to be run for the following 10 year period from 1/1/1999 to 31/12/2008 using the 61078 Williamtown Pluviograph
4. Export the results from MUSIC at the outlet (“receiving water” node) into a daily flow time series
5. For each daily time step, calculate the average flow for the previous 7 days
6. Determine the maximum average flow for the entire year (January to December)
7. Rank the maximum average flows for each year from highest to lowest and plot a probability distribution curve

Figure 4.16.1: Example low flow duration frequency curve
An example of two high flow duration frequency curves is shown in Figure 4.16.2. This was produced for the same hypothetical scenario as Figure 4.16.1. Figure 4.16.2 shows, for example:

- Before development, the average 7 day flow exceeds 1,000 m$^3$/s in approximately 20% of all years
- After development, the average 7 day flow exceeds 1,000 m$^3$/s in approximately 30% of all years

![High Flow Duration Frequency Curve](image)

**Figure 4.16.2: Example high flow duration frequency curve**

**Demonstrating compliance with the objectives**

In order to demonstrate compliance with the hydrology objectives, it is necessary to produce the relevant high and low flow duration frequency curves, for:

- Pre development conditions (100% pervious)
- Post-development conditions without mitigation
- Post-development conditions with mitigation.

To achieve compliance the following is required:

- Low flow duration frequency curve: the post development with mitigation is equal to or less than the pre-development for all values up to and including the 80 percentile
- High flow duration frequency curve: the post development with mitigation is equal to or less than the pre-development for all values up to and including the 80 percentile

All devices which use infiltration must clearly state the infiltration rate adopted. The infiltration rate adopted must be accompanied by site specific soil investigations including field infiltration tests and laboratory tests by a suitably qualified geotechnical or soil scientist. The infiltration rate(s) is to be used in MUSIC for the relevant treatment node(s).
Soil infiltration testing must be undertaken at all proposed locations of end of pipe treatment systems with a minimum of 3 field and 3 lab tests per end of pipe treatment location.

For those proposed mitigation measures which utilise stormwater reuse, the proposed (or actual) reuse demands are to be clearly stated. The proposed reuse demands adopted are to be clearly stated and justification of the values adopted is to be provided. The proposed reuse demands are to be compared to appropriate benchmarks (eg. for irrigation demand this would be ML /Ha of irrigated field). Where actual reuse demands (eg. existing sports ovals, existing industrial non-potable demands) historical water consumption values are to be adopted and data provided on these demands.

The adopted impervious area must be clearly stated. Providing generic rates or values for impervious areas for the development is not suitable and all post-development impervious rates must be substantiated. The impervious area values are to be justified using either development plans showing proposed lot sizes and house footprints as well as proposed road layouts or alternatively using an adjacent –development which has been recently developed which is considered to be of similar density to the proposed development. Proponents are encouraged to minimise the amount of impervious area in catchments draining to SEPP 14 Wetlands.

4.17 Modelling guidelines for developments larger than 5,000m²

All modelling shall be undertaken using the Model for Urban Stormwater Improvement Conceptualisation (MUSIC) or similar software model approved by Council. Specific nodes have been prepared for MUSIC users in the MUSIC link application of the software. For developments where a more complicated WSUD solution is required, developers shall use the Draft NSW MUSIC Modelling Guidelines (BMT WBM, 2010). This document is free to download and should be used by developers as a priority.

A copy of the summary and data files will be required to be submitted with any application that relies on modelling along with a MUSIC link report.

4.18 Maintenance

Maintenance must be considered as part of the design process and proof of this will be required. A maintenance manual and schedule is required to be submitted which sets out the routine maintenance necessary to retain the systems viability. The resident/owner of the property shall receive a copy of this schedule on approval of the development. The schedule should be signed to indicate that it has been received and understood. A copy of the signed manual shall also be submitted to Council.

The maintenance manual should contain information on the following issues:
- where the storages are located
- which parts of the system need to be accessed for cleaning and how access is obtained
- a description of any equipment needed (such as keys and lifting devices) and where they can be obtained
- the location of grates/cover and how they can be removed for cleaning
- who should do the maintenance
- how often the maintenance should be done.

Systems should be designed such that specialist personnel (eg confined spaces certified) are not required to perform ongoing maintenance.
Land ownership and asset ownership are key considerations prior to the planning, design and construction of a stormwater treatment device. This section will outline specific requirements for assets that will be contributed to Council. These requirements shall be followed for all developments that will result in infrastructure being contributed to Council, irrespective of the size of the development. In general, the process that is required to be followed is similar to that outlined for large development in Part 4b. Additional requirements will be outlined in the following section.

4.19 Process flow chart for the creation of public assets

4.20 General requirements

4.21 Stormwater treatment trains

4.22 Asset transfer checklist
4.19 Process flow chart for the creation of public assets

Development will result in an asset being contributed to Council (refer to Section 4c)

Selection of stormwater controls and WSUD elements to suit particular constraints of the proposed development

All stormwater controls and WSUD elements that are to become Council assets shall be designed using the principles prescribed within these documents:
- Concept Design Guidelines for Water Sensitive Urban Design (South East Queensland Healthy Waterways Partnership, 2009)
- Australian Runoff Quality (Engineers Australia, 2006)

Undertake MUSIC modelling for proposed stormwater controls and WSUD elements

Draft NSW MUSIC Modelling Guidelines (BMT WBM, 2010)

If the development is located in the SEPP14 wetland catchment area refer to Section 4.16 for guidance on how to meet the DCP requirements outlined in Section 7.06 of the DCP.

Detailed design

All stormwater controls and WSUD elements that are to become Council assets shall be designed using the parameters prescribed within this document:
- Water Sensitive Urban Design Technical Design Guidelines for South East Queensland (South East Queensland Healthy Waterways Partnership, 2009)

Filter material

All stormwater controls and WSUD elements must be constructed using filter material consistent with at least one of the specifications in the following documents:
- Facility of advancing Water Biofiltration (FAWB), Stormwater Biofiltration Systems Adoption Guidelines, Planning Design and Practical Implementation V1 June 2009, or FAWB guidelines for filter media in biofiltration systems V3.01 (June 2009).

Design and documentation

All stormwater controls and WSUD elements that are to become Council assets will be designed and documented to a minimum standard as detailed in the following:
- The City of Newcastle Standard Drawings (please refer to Council’s website for further details www.newcastle.nsw.gov.au)

Construction, establishment and asset handover

All stormwater controls and WSUD elements that are to become Council assets are to be constructed and established in accordance with the methods specified within:

Note: This should include adherence to all relevant checklists, hold points, inspection points, sediment protection measures, plant specifications, maintenance periods and hand over procedures.

Asset under Council’s care, control and management
4.20 General

1. The requirements contained within this section apply to all developments within the city of Newcastle that will result in the creation of an asset that will be dedicated to Newcastle City Council.

2. The responsibility for the submission of satisfactory details as required in these guidelines must rest solely with the applicant.

3. Detailed plans showing the proposed method of stormwater disposal are to be submitted to Council with the Development Application, and are to be shown on the plans prepared in support of the Construction Certificate, as approval will not be granted for any work commencing on site until the stormwater system has been approved.

4. Electronic work as executed drawings is to be provided following the installation of all public assets. The format of the electronic files is provided in the conditions of consent.

5. Generally, all stormwater designs/investigations must be prepared in accordance with all relevant sections in this manual. To prevent delays in assessment, the applicant should ensure that all necessary details included in this manual and DCP Section 7.06 are submitted.

6. All Water Sensitive Urban Design (WSUD) systems require integration with surrounding open space. Site specific investigations need to include local topography, soil profiles, landscaping, public utilities, services and existing watercourses and any other relevant features.

7. All WSUD systems are to be designed to account for Newcastle City Council's Maintenance Requirements and Work Health Safety.

8. All devices are to be designed to eliminate the need for fencing. Public safety should be considered in all designs which should help determine their location, configuration and proximity to other public infrastructure.

9. Devices are to be configured in such a way as to ensure that major flow does not enter the device. A major flow bypass is to be provided.

10. The maximum batter grades to be 1 (V): 6 (H) turfed and 1 (V): 3 (H) landscaped.

11. Off Street parking bay for Council Maintenance Trucks is to be provided within 1m horizontal distance and 2m vertical distance from the GPT, diversion pit and sediment bay. The Parking bay is to be designed in accordance with the Australian Standard for Parking Facilities AS2890-2 2002 and Austroads Design Vehicles and Turning Path Templates (2013 Edition) for a Heavy Mass Vehicle GVM 37 tonne Single Unit Truck(12.5m) with a 12.5m radius turning circle.

12. Removable bollards should be installed at 1.2m centres across access to all access points.

13. All WSUD system elements are to be in accordance with Council’s Standard Drawings – A2400 Series.

14. All stormwater drainage system elements shall be designed in accordance with Council Standard Drawings A2000, A2100 and A2200 Series

15. At steep sites, high velocity can easily cause scour and erosion. Energy dissipation is a key consideration for the design.

16. To minimize velocities consider the use of drop structures and pipe grades to be a maximum of 1% grade discharging to a level spreader outlet structure.

17. The design capacity of the drainage system is to be the 10% AEP
18. All precast concrete pipes with interior surface subject to tidal flow shall be designed as Marine Environment in accordance with AS4058. This includes precast concrete pipes with invert levels less than 2.0m AHD

19. All precast concrete pipes for stormwater applications shall be designed in accordance with AS3725 and AS4058. Support Type H1 to be adopted for design and construction in accordance with Council Standard Drawing A2000

**Kerb Inlet Pits**
- All new public kerb inlet pits installed in a commercial area and within 200m walk from a commercial area require litter basket inserts to Council's requirements.
- All driveways are to be a minimum of 1m from the edge of the kerb inlet pit (lintel).
- The double grating of pits for driveway access is not acceptable.

### 4.21 Stormwater treatment trains

A series of treatment measures that collectively address all stormwater pollutants is termed a "treatment train". The selection and order of treatments is a critical factor in developing treatment trains. The coarse fraction of pollutants generally requires removal so that treatments that target fine pollutants can operate effectively. The proximity of a treatment to its source and the distribution of treatments throughout a catchment are other factors which are important in developing a treatment train.

Stormwater treatments that target the removal of gross pollutants and coarse sediments such as gross pollutant traps (GPTs) and sedimentation basins can operate under high hydraulic loading and can treat high flow rates.

As the target pollutant particle size reduces, the nature of the treatment process changes to include enhanced sedimentation, bio film absorption and biological transformation of the pollutants. The treatment processes include grass swales, vegetated buffer strips, wetlands and bioinfiltration systems which require longer detention times than for GPTs, in order to allow various pollutant removal processes to occur. The hydraulic loading on these treatment processes is relatively low in comparison to gross pollutant removal measures.

A treatment train consists of a combination of treatment measures that can address the range of pollutant particle sizes in stormwater. Therefore, a treatment train employs a range of processes to achieve pollutant reduction targets such as physical screening, enhanced sedimentation and filtration.

**Constructed Wetlands**

Constructed wetland systems remove pollutants through sedimentation and absorption of nutrients and other associated contaminants. They generally consist of an inlet zone (a *sediment basin*) to remove coarse sediments, a macrophyte zone (a shallow heavily vegetated area to remove fine particulates and take up soluble pollutants) and a high flow bypass channel (to protect the macrophyte zone). Refer to the following figures for further details on preferred edge treatments for constructed wetlands.

The design and construction of constructed wetlands, which are to be dedicated to Council, are to meet the following minimum requirements:
- The volume of the pond is to provide the required residence time to ensure that the post development stormwater pollution loads are reduced to pre development levels. Pollutant removal should be enhanced by minimising short-circuiting and minimising areas of potentially stagnant water.
- The volume is to be calculated using a daily time series analysis, by water quality computer modelling in an iterative manner. The analysis is to take into account the frequency of occurrence of events, pond conditions at the commencement of events, and the pattern of intervals between events.
- The wetlands should generally be offline with a major flow bypass for storm events greater than the design storm event.
- A buffer zone is to be provided around the wetland and planted with indigenous riparian vegetation.
- Between 10% and 30% of the basin surface is to be planted with macrophytes.
- The surcharge volume is to be sufficient to contain the first flush runoff from the upstream catchment.
- The surcharge volume is to be fully available 48 hours after cessation of stormwater inflow.
- The maximum batter of the slopes is not to exceed 1:8 (V:H) around the perimeter, however a steeper slope of up to 1:4 may be used below the permanent water level to provide additional water quality treatment volume.
- The embankment height is to be at least 500mm above the spillway crest.
- The minimum embankment crest width is to be not less than 3m.
- The full spillway area is to be protected using armoured Enkamat or equivalent.
- Any area where the water depth for the 5% AEP storm event is greater than 1.2m and there exists a gradient of greater than 1:8 (V:H) from the edge of the stored water for any time during storms up to the 100-year storm event shall have access restricted.
- Warning signs shall be supplied and installed around the perimeter of the wetland. These signs shall be in accordance with Council’s standard Floodway Warning Sign and include a “No Swimming” notice. They shall be located within the line of sight of the adjacent signs on the perimeter but not exceeding a spacing of 50m.
- A sediment control system and a trash rack are to be provided upstream of the inlet to the basin.
- A maintenance plan is to be provided with the design. This will need to include the removal of sediment from the sediment trap, macrophyte plant harvesting, and mosquito and weed control.
- Indigenous aquatic plant species are to be planted in the wetlands, with the quality, spacing and types specified on a landscape plan. A variety of species should be used and they should be established by transplantation of seedlings during spring and early summer. The base of the wetlands is to be over-excavated to provide for a minimum soil depth of 300mm. Suitable local horizon A mulched soils shall be used to provide the 300mm macrophyte planting bed substrate. Refer: AS 4419-1998 Soils for Landscaping & Gardening. The location and arrangement of the semi-permanent stored water associated with the water control facility shall be such as to minimise potential nuisance on habitable areas and amenities within the development.
- The wetland should be constructed prior to the commencement of other construction work.
Bioretention Systems and Sand Filters

Bioretention systems filter stormwater runoff through a vegetated soil media layer. The treated stormwater is collected at the base of the system via perforated pipes, from where it flows to downstream waterways or storages for reuse. Temporary ponding above the filter media provides additional treatment. Bioretention systems are not intended to be infiltration systems where treated stormwater would discharge into groundwater. Typically, flood flows will be designed to bypass the system thereby preventing high flow velocities that can dislodge collected pollutants and scour vegetation. Bioretention systems can be installed at various scales and can be co-located within detention basins provided careful configuration of the filtration area is designed to avoid scour and short circuiting.

The design and construction of basins comprising bioretention or sand filters, which are to be dedicated to Council, are to meet the following minimum requirements:

- All sediment and gross pollutants are to be removed upstream of Bioretention Basins or Sand filters using other discharge controls forming part of the stormwater treatment train.
- All devices are to be designed to treat the 6 month ARI storm event.
- A high flow bypass is to be provided routing flows of the 40% AEP and above around the biofiltration area to avoid scour during intense storms. If the high flow bypass in vegetated with grasses then the velocity shall not exceed 2m/s in the 1% AEP event.
- The finished surface of the bioretention filter media or sand filter must be flat to ensure full engagement of the filter media by stormwater flows.
- The extended detention depth above the filter media shall not exceed 0.3m.
- The time of mean filtration shall be 24 hours and no longer than 48 hours.
- An impermeable liner to the bioretention filter is to be provided in areas where the saturated hydraulic conductivity of the bioretention filter media is less than 10 times that of the native surrounding soils or on steep sites to prevent transverse seepage from the device. Example of liner Bentofix or Equal.
- Where a liner is not required the base and walls of the filter media is to be lined with BIDIM A14 Geofabric or Equal.

- A network of 100mm slotted UPVC subsoil pipes is to be provided over the base of the filter, have flush out surface points with concrete surrounds and caps and be connected to a receiving pit.
- Joints are to be solvent cement glued.
- Maximum spacing between subsoil collection pipes to be 5m. In a large system a collection pipe (minimum 225mm is to be provided).
- Mulch is to be provided to all landscaped batters and bioretention media surface, but not to sand filters.
- Mulch to be minimum 75mm deep of 20mm double washed gravel or equal.
- Where required, an overflow weir is to be provided with a minimum freeboard of 0.1m to the inlet of the receiving pit.
- Overflow weir is to be constructed level and rock pitched to prevent scour – minimum 400mm diameter sandstone rock is to be used. Rock is to be placed in accordance with the guidelines for rock placement shown on standard Drawing A 2402.
- A trafficable access is to be provided to the base of the Bioretention/Sand Filter to Council’s standards for maintenance purposes.
- In large devices (greater than 500m²) consider the use of a flow spreader or flow distribution channels to evenly distribute flows to ensure engagement of the entire media surface and to avoid short circuiting.
- A settlement basin and level spreader is to be provided at the inlet to the basin, energy dissipation and scour protection are to be provided in accordance with Standard Drawing A2402 and A2405 to protect the filter media from scour.

### Bioretention Material specifications

- All bioretention media should be in accordance with the *Guidelines for Filter Media In Biofiltration Systems* (2009) prepared by the Facility for Advancing Water Biofiltration (FAWB).
- All materials used for media, transition or drainage layers are to be tested and certified compliant.
- For Bioretention systems in a temperate climate the prescribed hydraulic conductivity will be between 100 – 300mm/hr, as measured using the ASTM F1815-06 method.
- In order to ensure that the system functions adequately at its eventual hydraulic conductivity, a safety factor of 2 should be used, i.e. designs should be modelled using half the prescribed hydraulic conductivity.
• The filter media should be well graded ie. it should have all particle size ranges present from 0.075mm to 4.75mm sieve (AS1289.3.6.1 – 1995).

• There should be no gap in particle size grading and the composition should not be dominated by a small particle size range. An ideal particle distribution is as follows:

<table>
<thead>
<tr>
<th>Particle Size</th>
<th>Percentage</th>
<th>Organic Matter Content</th>
<th>pH</th>
<th>Electrical Conductivity(EC)</th>
<th>Orthoposhate (PO4 )</th>
<th>Total Nitrogen(TN) content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay and silt</td>
<td>(&lt;0.05mm)</td>
<td>&lt;3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Fine sand</td>
<td>(0.05-0.15mm)</td>
<td>5-30%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine sand</td>
<td>(0.15-0.25mm)</td>
<td>10-30%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium to coarse sand</td>
<td>(0.25-1.0mm)</td>
<td>40-60%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coarse sand</td>
<td>(1.0-2.0mm)</td>
<td>7-10%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine Gravel</td>
<td>(2.0-3.4mm)</td>
<td>&lt;3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Organic Matter Content – less than 5% (w/w).
pH – as specified for ‘natural soils and soil blends’ 5.5 – 7.5(pH 1:5 in water)
Electrical conductivity(EC) - as specified for ‘natural soils and soil blends’ <1.2dS/m.
Orthoposhate (PO4 ) - <80mg/kg.
Total Nitrogen(TN) content - <1000mg/kg.

• The transition layer prevents the media from washing into the drainage layer and shall be a clean, well graded sand material containing <2%fines. To avoid migration of the fines, the particle distribution of the sand should be assessed to ensure it meets the ‘bridging criteria’, ie. the smallest 15% of sand particles bridge with the larger 15% of the filter media particles (FAWB June 2009).

• The Drainage Layer collects the treated water at the bottom of the system and conveys it to the slotted drainage lines. Drainage material is to be clean fined gravel 2 – 5mm washed screenings. ‘Bridging criteria’ should be applied to avoid migration of the transition layer in accordance with FAWB.

Sand Filter Material specifications

• Sand Filter material to be in accordance with the WSUD Technical Guidelines for SEQ Version 1 June 2003 Section 8.3.4.1. Material with particle distributions as follows to be used for sourcing materials:

<table>
<thead>
<tr>
<th>% passing</th>
<th>9.5mm</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.3mm</td>
<td>95 – 100%</td>
</tr>
<tr>
<td></td>
<td>3.17mm</td>
<td>80 – 100%</td>
</tr>
<tr>
<td></td>
<td>1.5mm</td>
<td>50 – 85%</td>
</tr>
<tr>
<td></td>
<td>0.8mm</td>
<td>25 - 60%</td>
</tr>
<tr>
<td></td>
<td>0.5mm</td>
<td>10 – 30%</td>
</tr>
<tr>
<td></td>
<td>0.25mm</td>
<td>2 – 10%</td>
</tr>
</tbody>
</table>

This grading is based on TP10 (ARC2003).

• Sand filters require a drainage layer to prevent migration of sand filter material into the slotted drainage pipes. The particle size of the drainage material is selected with consideration to its need to bridge the particle size of the sand filter media and the slot size of the drainage pipes. It is preferred to use a coarse sand however a clean washed fine gravel can be used.

Plant selection for Bioretention devices

For local plant selection and planting guidance please refer to Appendix 4.
Vegetated and Bioretention Swales

Vegetated swales can be used instead of pipes to convey stormwater and provide a ‘buffer’ between the impervious areas of a development and the receiving water. They can be integrated with landscape features in public open space, or incorporated into streetscapes. The interaction with vegetation facilitates an even distribution and slowing of flow, thus encouraging pollutant settlement and retention in the vegetation.

A swale is a shallow trapezoidal channel lined with vegetation used for conveyance of stormwater flows. Bioretention swales include a vegetated infiltration trench within the base of the swale to provide water quality improvements to stormwater.

Both vegetated and bioretention swales are to be designed in accordance with Council’s Standard Drawings and the following minimum criteria:

- The desirable maximum longitudinal grade of the swale is 4%.
- The minimum longitudinal grade of the swale is 1%.
- Bioretention parts of the swale should be constructed in a flat section of the swale to ensure filtration of stormwater. This can be achieved with check dams providing some extended detention of the stormwater in conveyance or preferably in the most downstream extent of the swale.
- Bioretention is not suitable underneath any rock lined parts of a swale.
- For longitudinal grades steeper than 4%, check dams (minimum 100mm high) are to be placed at regular intervals along the invert of the swale. The spacing of the check dams will depend on the grade of the swale.
- Swales can use a variety of vegetation including sedges and tufted grasses covering the whole width of the swale.
- Swales located within footpaths (ie. road verges) must consider the standard location for services within the verge and ensure access for maintenance of services.
- Velocities of flows within the swale component for both minor (40-10% AEP ARI) and major (5-1% AEP) rainfall events are to be kept preferably below 0.5m/s and not more than 2.0m/s (for major flooding) to avoid scouring of the swale.
- Depth x Velocity products shall not exceed 0.4m²/s for all flows.
- The extended detention depth above the base of the swale shall not exceed 0.3m.
- Driveway crossings constructed within swales at grade (refer Figure 4.4.3) shall be constructed at 1(V):6(H) and comply with Council’s driveway specification.
- The maximum batter grade within the vegetated swale between roadways and the swale shall be 1(V):3(H) and the opposing side of the swale shall be 1(V):3(H).
- A concrete flush edge restraint 0.2m wide x 0.3m (min) deep shall be provided at the interface between the road pavement and the batter of the swale in areas adjoining roads (as per Figure 4.5.2). For concrete roads, the edge restraint shall be integrated into the concrete pavement. A 40mm drop down from the surface of the edge restraint to the top of the landscaping is to be provided to prevent material moving onto the road surface.
- All swales are to be designed so that they do not require fencing.

Bioretention media to be in accordance with the Guidelines for Filter Media In Biofiltration Systems (2009) prepared by the Facility for Advancing Water Biofiltration (FAWB) and criteria as detailed in section above.
4.22 Asset transfer checklist

Land ownership and asset ownership are key considerations prior to construction of a stormwater treatment device. A proposed design is to clearly identify the ultimate asset owner and who is responsible for its ongoing maintenance. In addition to the requirements outlined above, Council will use the asset transfer checklist when the asset is to be transferred to Newcastle City Council. Please refer to Appendix 5 for a sample Asset Transfer Checklist.

Maintenance Manual

Prior to asset transfer, all required maintenance activities must be specified in a maintenance plan (and associated maintenance inspection forms) to be developed as part of the design and asset handover process. Maintenance personnel and asset managers will use this plan to ensure the device continues to function as designed. As a minimum, the maintenance plan/s and form/s must address the following:

- inspection frequency
- maintenance frequency
- data collection/storage requirements (ie. during inspections)
- detailed cleanout procedures (main element of the plans) including:
  - equipment needs
  - maintenance techniques
  - workplace (occupational) health and safety
  - public safety
  - environmental management considerations
  - disposal requirements (of material removed)
  - access issues
  - stakeholder notification requirements
- data collection requirements (if any)
- design details.

An example operation and maintenance inspection form is included in Appendix 6

Bonds

Where works are proposed to be carried out on Council or public land (ie. roads, parks, etc) by or on behalf of an applicant, a bond will be required to cover the cost of the construction and potential rectification works. The value of the bond will depend on the works proposed, and be determined by Council.

Further information

For further information please refer to the following best practice guidelines:

General
- Water Sensitive Urban Design Book 4 Maintenance (Landcom)
Maintenance

- **Wetlands**
  - Water Sensitive Urban Design Book 4 Maintenance (Landcom)

- **Swales**
  - Water Sensitive Urban Design Technical Design Guidelines for South East Queensland
    (South East Queensland Healthy Waterways Partnership, 2009)
    Section reference: 2.6 Maintenance requirements

- **Bioretention swales**
  - Water Sensitive Urban Design Technical Design Guidelines for South East Queensland
    (South East Queensland Healthy Waterways Partnership, 2009)
    Section reference: 3.6 Maintenance requirements

- **Sediment Basins**
  - Water Sensitive Urban Design Technical Design Guidelines for South East Queensland
    (South East Queensland Healthy Waterways Partnership, 2009)
Part 5  Overflow disposal

Where site discharge controls are installed in accordance with this manual, they will treat the majority of runoff on an average annual basis. However, larger events will exceed the capacities of these systems from time to time. It is necessary to dispose of excess flows to the public drainage system in a manner that does not cause nuisance to neighbouring properties.

Off site disposal describes how the discharge to the public drainage system should be managed without affecting neighbouring properties.

5.1 Drainage to street

5.2 Connection to other drainage

5.3 Drainage to rear

5.1 Drainage to street

For properties that fall to the street, overflow from the drainage controls should be connected to the street drainage system. Connection to the kerb and gutter, or the pipe drainage system should be made in accordance with the technical manual guidelines.

5.1.1 Connection to kerb and gutter

Stormwater may be discharged to the street kerb and gutter subject to the following.

Single pipe discharges should not exceed 25 litres per second per 15m run of kerb in the 5% AEP event. Maximum total site discharge piped to the kerb should not exceed 50 litres per second. Discharges may be increased subject to a full catchment analysis by a Consulting Engineer. Such analysis should show immediately downstream of the proposed discharge point(s) that:

- at least a 3m clearway is maintained on the road carriageway during the total catchment 10% AEP runoff
- depth of flow does not exceed 100mm
- velocity-depth product does not exceed the recommended products given in Keller and Mitsch and reproduced in Appendix 2 and given by equation 3.1.

The type of pipe crossing from the boundary to the kerb and gutter will depend on the size of on site drainage leading to it. Circular pipe capacities can be obtained from manufacturers.

The following rectangular hollow sections (RHS) can be assumed to have the same flow capacity as the nominated circular sections.

- 1 x 150 x 50 mm RHS = 90mm dia pipe
- 1 x 200 x 100 mm RHS = 150mm dia pipe
- 2 x 200 x 100 mm RHS = 225mm dia pipe
For standard 150mm-kerb height, one of the following pipe crossings, from boundary line to kerb should be used:

- 1 or 2 x 100mm diameter sewer grade uPVC pipe(s) except under brick paved footways
- 1 or 2 x 200mm x 100mm x 6mm thick RHS galvanised except under brick paved footways
- 1 or 2 x 150mm x 50mm x 4mm thick RHS galvanised.

Kerb converters are available for most standard kerb profiles at hardware stores and plumbing suppliers. Kerb outlets should be separated by a minimum 300mm.

Connections across the footway to the street gutter should be a minimum of 60 degrees to the kerb.

5.1.2 Direct connection to Council’s underground pipe system

Stormwater may be discharged to the street piped drainage system subject to the 10% AEP hydraulic grade line of the street pipe being lower than the property drainage system.

For attachment of subsoil lines and pipes up to 100mm diameter, direct connection to Council’s underground pipe system should be made using an approved proprietary clamp or saddle. Larger pipes should be connected via an inspection or grated kerb inlet to suit entry for cleaning.

Notwithstanding the above requirements, any over-riding requirements of the relevant roads authority must be met.

Where the above requirements cannot be met or there is no kerb or pipe available in the street, then the downstream street drainage system is to be extended to the development site.

Design criteria are to be obtained from the relevant roads authority. In general, Council’s new pipelines should be:

- Minimum 375mm diameter rubber ring jointed reinforced (fibre or steel) concrete.
- Laid at a minimum grade of 1% except for lengths of up to 50m of 675mm diameter or larger pipes can be laid as flat as 0.5%.
- Covered by a minimum depth of 450mm in roads or 300mm in footways or in accordance with their recommended load ratings.
- There should be a new grated surface inlet pit with lintel outside the development site.
- Access points or kerb entry pits are required for cleaning to be provided at no greater than 50m spacing. Shorter distances may be required for collection of design flows.
- Grated surface inlet pits should be constructed in accordance with Council’s Standard Drawings A2200 series.
- Junction pits not on the kerb alignment should be in accordance with Council’s Standard Drawings.
- A junction or surface inlet pit is to be constructed within the property at the boundary, at the point of the discharge from the site.
- All precast concrete pipes with interior surface subject to tidal flow shall be designed as Marine Environment in accordance with AS4058. This includes precast concrete pipes with invert levels less than 2.0m AHD

Proposed designs for pipeline or kerb extensions should be prepared by a consulting civil engineer or registered surveyor and submitted to Council for approval.
Any longitudinal drainage within footways requires the separate approval of Council under the Roads Act 1993. Such consent will not be given unless the applicant demonstrates the concurrence of all utilities authorities. For further information about works on the public road reserve, refer to the section on ‘Road opening permits’.

5.2 Connection to other drainage

For properties that are intersected by or are adjacent to a public drainage system (pipes or open channels), connection can be made in accordance with this section.

5.2.1 Connection to public drainage system within the development site

Where a pipe or channel intersects the site and is not covered by an easement, an easement should be created in favour of Council. A suitable easement width for an existing Council drain will generally be the width of the pipe, box, or channel section, plus an additional 1.5m, with an overall minimum width of 3.0m.

Direct connections to Council stormwater channels must satisfy the following criteria:

- The channel is within or directly adjacent to the site.
- The design tailwater level for a sealed pipe drainage system is the top of the channel.
- The angle of entry of the pipe is a maximum of 30° (in the horizontal plane) to the direction of flow in the channel.
- Any other site specific requirements of Council.

Connections to Council stormwater pipes must satisfy the following criteria and any other site specific requirements of Council:

- For attachment of subsoil lines and pipes up to 100mm diameter, direct connection to Council’s underground pipe system should be made using an approved proprietary clamp or saddle. Larger pipes should be connected via an inspection or grated kerb inlet to suit entry for cleaning.
- Grated surface inlet pits should be constructed in accordance with Council’s Standard Drawings A2200 series.
- Junction pits not on the kerb alignment should be 900mm x 900mm internal dimensions with 900mm diameter circular lid with “NCC” or “STORMWATER” cast into the top.

5.2.2 Direct connection to Hunter Water Corporation channels

Connections to stormwater pipes and channels operated by the Hunter Water Corporation must satisfy the following criteria and any other requirements of the Hunter Water Corporation:

- Written consent must be obtained from the Hunter Water Corporation (a copy of which is supplied with the construction certificate application or complying development certificate application).
- The design tailwater level for a sealed piped drainage system connecting to such a channel is the top of the channel.
5.2.3 Direct connection to natural watercourses

Direct connections to natural watercourses are generally discouraged, however, where they are necessary, the number should be minimised and should comply with the following criteria:

- NSW Office of Water guidelines.
- Water should not be deflected from another catchment.
- Flow must be controlled in order to replicate the predevelopment hydrological regime.
- Concentrated flows are not permitted including piped drainage.
- Adequate measures must be provided to prevent streambank erosion, scour and other damage for flows up to the 1% AEP event. Such measures need to be aesthetically compatible with the existing riparian environment and may be the subject of separate approval under the Water Management Act 2000.

5.2.4 Modifications to Watercourses

Modifications to natural watercourses are generally not permitted, as they adversely impact on a number of issues including:

- Hydraulic function
- Channel pattern and form
- Long-term channel stability
- Aesthetic appearance
- Aquatic and riparian habitat diversity
- Water quality.

Any proposals involving modifications to watercourses will require the submission of a detailed hydraulic assessment as well as a thorough environmental impact assessment of the prepared watercourse modification. Modifications to watercourses will only be considered where no other alternative exists, such as when scour within the watercourse threatens the stability of a dwelling or other high value asset. The reduction of development potential as a result of not modifying a watercourse will not be considered justification for such modification.

Note: Lodgement of an Integrated Development Application will be required for any proposal involving the modification of a watercourse since the concurrence of the NSW Office of Water will be required pursuant to the requirements of the Water Management Act 2000.
5.3 Drainage to rear

For properties that fall away from the street, overflow from site discharge controls may be disposed from the site through any of the options in Table 5.1 where all the allowable circumstances exist.

Table 5.1 – Options for draining to rear

<table>
<thead>
<tr>
<th>Option</th>
<th>Circumstances in which option may be applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private drainage easements</td>
<td>Preferred option in all circumstances.</td>
</tr>
<tr>
<td>Charged systems</td>
<td>Only for residential properties up to and including a single dwelling.</td>
</tr>
<tr>
<td></td>
<td>Private drainage easement cannot be obtained.</td>
</tr>
<tr>
<td></td>
<td>Available head between roof gutter and road or pipe HGL must be &gt;1.5m.</td>
</tr>
<tr>
<td>Infiltration trenches</td>
<td>Private drainage easement cannot be obtained.</td>
</tr>
<tr>
<td></td>
<td>Analysis of soil shows sufficient capacity to dispose of peak 20 year ARI discharge.</td>
</tr>
<tr>
<td>Dispersion Trenches</td>
<td>Only for residential properties up to and including a single dwelling.</td>
</tr>
<tr>
<td></td>
<td>Private drainage easement is not available and cannot be obtained.</td>
</tr>
<tr>
<td>Pump out systems</td>
<td>Only for basement carpark areas.</td>
</tr>
<tr>
<td></td>
<td>Private drainage easement cannot be obtained.</td>
</tr>
<tr>
<td></td>
<td>maximum catchment 60m2</td>
</tr>
<tr>
<td></td>
<td>pump failure will not cause inundation of neighbouring properties or habitable floor areas</td>
</tr>
<tr>
<td>Overflow to public reserve</td>
<td>Public reserve has drainage system with adequate capacity to intercept flow before it affects other properties.</td>
</tr>
</tbody>
</table>

5.3.1 Easements

Suitable drainage easements should be created where it is necessary to discharge stormwater across downstream properties in order to access the public drainage system. Drainage easements are the preferred option for drainage to the rear in all cases.

Easements must have sufficient width having regards to:

- proposed pipe diameter
- structural requirements of pipes and any adjoining structure
- stormwater surface flow path capacity requirements
• requirements for access and maintenance.

Suitable easement widths will generally be 2.0m. However, a lesser width (minimum 0.9m) may be suitable where there is an existing structure along the proposed line of the easement. Where Council is a party benefited by the easement, a width of 3m is generally required. Easements should not be created under existing or future proposed buildings. Easements are to generally follow an overland flow path. Easements are not to flow against the grade.

Piped drains within private inter-allotment drainage easements should have sufficient capacity to convey the 1% AEP peak flow. The minimum pipe diameter is 150mm.

The 1% AEP requirement can be reduced to 5% AEP if a long-term overland flow path, such as a paved driveway with kerbing, is secured over the length of the easement of sufficient capacity to carry the major flow. The pipe system should be designed by a consulting engineer using hydraulic grade line analysis.

Easements will need to satisfy the following criteria:

• A written agreement is to be made between all relevant parties agreeing to its creation. A copy of this agreement should be provided to Council in support of any development application that requires it.

• A survey plan of the proposed easement should be prepared by a registered surveyor and endorsed with a statement to the effect that all pipelines are wholly contained within the proposed easement.

• Newcastle City Council must be nominated on the instrument creating the easement as a party whose consent is required to release, vary or modify the easement.

• Evidence of the creation of the easement should be provided to the certifying authority as part of the documentation accompanying a construction certificate application or complying development certificate application. Evidence of the written agreement to the creation of the easement is to be submitted with a development application. In this case the consent authority may grant deferred commencement consent subject to easement creation.

• Where the easement benefits private property only, Council does not wish to have dominant tenemency over the easement.

5.3.2 Demonstration that an easement cannot be obtained

In order that other drainage to rear options can be used, it will be necessary to demonstrate that an easement over all downhill neighbouring properties cannot be obtained.

To demonstrate that a drainage easement cannot be obtained, the following documentary evidence should be submitted to the consent or certifying authority:

• A copy of letter(s) sent to the owner(s) of neighbouring property(s) along all feasible easement routes. The letter is to include offer of financial compensation and is to indicate that the burdened property is not responsible for easement maintenance. Financial compensation may be determined by inquiry to a registered valuer.

• A signed copy of a letter(s) from the owner(s) of the neighbouring property(s) in which it is stated that an easement will not be granted. Should it not be possible to obtain such a letter(s) then a written account of any responses obtained from the owner(s) is required which may then be subject to independent verification by the certifying authority.
5.3.3 Charged Systems

Charged systems rely on the difference in level (head) between the overflow of the site discharge control and the street gutter to drive water “uphill”. One key feature of a charged system is that it holds stagnant water for a period of time until the next rain event. The ability to clean a charged system is therefore very important.

Charged systems are an option for the drainage of a single unit dwelling only and do not apply to medium density developments. They should satisfy the following criteria:

- Minimum of 1.0m head must be available from overflow to discharge point, or the pipe system should be designed by hydraulic grade line analysis.
- The piped system must be completely sealed.
- The pipe system including downpipes must be constructed from suitably durable materials.
- A cleaning eye must be provided at the lowest point of all pipes.
- Gravity drainage to the street kerb should be provided from a suitably located access pit.
- The system should be designed by a Consulting Engineer who undertakes a hydraulic grade line analysis to demonstrate that the system can discharge the 5% AEP storm runoff without roof gutter surcharge.
- A design plan is prepared by a Consulting Engineer which shows a longitudinal section of the entire piped system from roof gutter to street gutter showing invert levels, flow rates and hydraulic grade lines. Hydraulic grade line calculations are to be shown.

5.3.4 Infiltration Trenches

Infiltration trenches can be used to dispose of site stormwater. Such trenches can be deemed a substitute for site discharge controls if desired.

An infiltration trench drainage system is to be designed by a Consulting Engineer. The design is to be based on a site test report to be provided by a geotechnical engineer. The design, supporting calculations and the site test report are to be submitted for approval by the consent/certifying authority.

Site testing is to be undertaken, and a report prepared by a geotechnical engineer in accordance with the following:

- A minimum of 2 tests are to be made at the location of the proposed infiltration trench(es) and at the invert level of the proposed trench(es).
- Infiltration is to be measured in pre-saturated soil by a double-ring infiltrometer test or equivalent.
- Permeability is to be reported in metres per day or centimetres per second and also in litres per second per metre squared for a mid-depth level of water in the proposed trench.
- The depth to any underlying rock stratum or water table is to be determined if within 2m of the proposed trench invert level.
- Provision of borehole log evaluation of soil types.
- Recommended offset of trench from buildings.
- The likely impact, if any, to neighbouring properties including footings and basement areas.
Infiltration trench design is to be undertaken in accordance with the following criteria:

- The trench system must fully infiltrate the 5% AEP runoff from all impervious areas for all storm durations without surcharge onto neighbouring properties. The minimum impervious area to be used should be 80% of the total site area to cater for future development.
- Impervious areas include all roofs, paved areas and pools, whether or not other site discharge controls are provided.
- Any proposed pervious area contribution must also be included.
- The design method is to be a suitable time-area computer model such as ILSAX or the mass-curve technique in AR&R. Such methods can accurately assess adequacy of proposed storage volumes.
- Pre-treatment sediment, gross litter and oil traps are to be installed upstream of the trench.
- The trench is to be oversized to account for a 20% blockage factor at the trench – soil interface.
- Single-sized blue metal, gravel or sand can be assumed to have a 30% void ratio.
- The base of the trench is to be at least 1.0m above the underlying watertable or rock stratum (if present).
- Trenches are to be offset at least 2m from boundaries and 3m from buildings unless a structural engineer certifies the adequacy of the footings in closer proximity to the trenches.
- The design infiltration area is the area of the base(s) of the trench(es) only and does not include the sides of the proposed trench(es).

5.3.5 Dispersion Trenches

Dispersion trenches are suitable for the disposal of the overflow from site discharge controls for single dwelling houses only. They are an option for the disposal of water in circumstances where no other opportunities exist and are intended to permit the redevelopment of existing residential sites larger than 600m² only.

Dispersion trenches should

- Have a cross-sectional area of at least 600mm x 600mm, with a length of one metre for every 25m² of catchment.
- Be oriented parallel to the ground surface contour.
- Be lined with geofabric to prevent silt entering the trench from the base, top and side walls.
- Be filled with large – single sized aggregate to as near as practicable to the surface.
- Not cut through the root systems of trees covered by Council’s Tree Preservation Order.
- Receive stormwater via a slotted pipe laid across the full length of the trench at the half-depth level.
- Be covered by the geofabric with a 150mm overlap beyond the trench walls. A further 75mm aggregate should then be placed over the trench.
- Be offset at least 2m from boundaries and 3m from buildings unless a structural engineer certifies the adequacy of the footings in closer proximity to the trench.
5.3.6 Pump-out Systems

Pump-out drainage systems may be used for basement carpark areas but should be avoided for catchments greater than 60m².

Pump-out drainage systems should be designed by a Consulting Engineer to the following criteria:

- Dual alternating pumps with level switches and activation of dual operation at top water level.
- Provision of pump description including manufacturer, model number and published data sheets.
- Automatic alarm during pump failure.
- The rising main should terminate at a stilling pit from which gravity drainage to the street gutter is provided.
- The pump wet well is to have a storage capacity of at least the two hour 10% AEP storm runoff and is to be checked for adequacy up to the 1% AEP event by a time-area computer model or the mass-curve technique in AR&R.
- Noise levels will not affect neighbouring properties above recognised standards.

The consent authority may impose a requirement to create a positive covenant on the title of the property requiring regular maintenance, and reporting to Council, of the pump-out system by a suitable independent practitioner.

5.3.7 Discharge to or across public lands

Council cannot grant private drainage easements across public land. In some circumstances, site drainage systems may be allowed to overflow directly to public land. However, this will not be considered unless all other options have been investigated and found to be unsuitable to Council’s satisfaction. In general, the provisions of the Local Government Act 1993 and Plans of Management for Community Land prohibit the construction of pipe work in Council’s reserves for private developments.

Concentrated stormwater flows shall not be discharged and overflows should generally not be discharged to or across:

- Reserves administered by the National Parks and Wildlife Service
- Crown reserves
- Community Land administered by Council including parks and reserves
- Other public land that consists predominantly of native vegetation.

Drainage across public land may only be approved after consultation with the relevant authority prior to the issue of development consent. In general the drainage must be designed in accordance with the following criteria:

- It must not be concentrated and must be commensurate with predevelopment flow rates for all events.
- It must not create conditions likely to give rise to landslip or other geotechnical hazards.
- It must be approved by the relevant public authority prior to the issue of a construction certificate or a complying development certificate.
- It must be in accordance with relevant laws and plans of management regulating or authorising the use of that public land.
• It must incorporate erosion, sediment, water quality control and other environmental management measures to the satisfaction of the relevant public authority.

• In the case of Community Land administered by Council, it must not involve the construction of pipes or other drainage facilities.

5.3.8 Laneways

Where a proposed development site has frontage to a laneway and the laneway is lower than the site, the development may be drained to the surface but only if:

• it is a single dwelling house with full frontage to the street at the front (not lane at the rear), and
• the discharge is via a dispersion trench in accordance with the above criteria.

Where it is proposed to drain other development to a laneway, the underground street drainage should be extended into the laneway to receive the overflows in accordance with section 5.1 of this manual.
Glossary

Terms used in this manual

A term used in this manual has the same meaning as it has in the Newcastle Local Environmental Plan 2012 and Newcastle Development Control Plan 2012, unless it is otherwise defined in this manual. In the event of an inconsistency, the definitions contained within the statutory planning documents will prevail.

Accredited certifier

A person who is accredited by a professional body approved by the Minister. Accredited certifiers may:

- issue complying development certificates
- issue construction certificates
- issue compliance certificates
- issue occupation certificates
- act as a principal certifying authority.

Accredited certifiers may only undertake tasks relevant to their expertise.

The names of accredited certifiers working in this area may be ascertained by checking with relevant professional associations.

Annual Exceedance Probability (AEP)

Is the probability that a flood of a given or larger magnitude will occur within a period of one year. Its reciprocal is equivalent to average recurrence interval (refer to Appendix 1 for further details).

Australian Rainfall & Runoff (AR&R)

A technical manual providing guidance on current drainage design practice published by the Institution of Engineers Australia.

Australian Height Datum (AHD)

A standard datum for expressing vertical information.

Building

A building includes a structure.

Black water

Water contaminated by faecal matter or pathogens. Commonly, all wastewater originating from toilets is black water.
Bore water

Surface water originating from groundwater and pumped to the surface via a bore drilled into the ground.

Certifying authority

A person authorised to issue complying development certificates, construction certificates, compliance certificates, occupation certificates, and subdivision certificates. This person may be the Council or an accredited certifier.

Complying development

Development that is declared to be ‘complying development’ by the Newcastle Local Environmental Plan or by some other environmental planning instrument.

Complying development includes relatively simple types of development that are subject to defined standards or requirements specified in a development control plan, local environmental plan or other planning instrument.

Complying development certificate (CDC)

A certificate that states that particular proposed development is complying development and (if carried out as specified in the certificate) will comply with all development standards applicable to the development.

A complying development certificate is the means by which ‘approval’ is given to complying development. It combines the functions of a development consent and a construction certificate. A complying development certificate may be issued either by the Council or an accredited certifier.

Construction certificate

A certificate certifying that construction drawings and specifications are consistent with the development consent and relevant construction standards, such as the Building Code of Australia. A construction certificate may be issued either by the Council or an accredited certifier.

Compliance certificate

A certificate certifying that specified development complies with relevant standards, specifications or conditions of consent. Compliance certificates are intended to apply to specific aspects of building and subdivision work.

Community land

Land that is classified as community land under Chapter 6, Part 2, Div 1 of the Local Government Act 1993. Community land is required to be used and managed in accordance with a plan of management.
Consulting Engineer

A person suitably qualified to be eligible for membership of the Institution of Engineers, Australia and who is experienced in the field of stormwater hydraulics and hydrology.

Covenant

A restriction on the use of land recorded on the property title and binding upon successive landowners. Covenants may be ‘negative’ (imposing restrictions) or ‘positive’ (imposing positive obligations). Covenants are imposed under the Conveyancing Act 1919.

Creek

A small water course in or out of its “natural condition” and defined by topography rather than whether or not it contains water.

Development

Under the Environmental Planning and Assessment Act 1979, development is defined to be:

- the use of land
- the subdivision of land
- the erection of a building
- the carrying out of a work
- the demolition of a building or work
- other acts, matters or things controlled by an environmental planning instrument.

Development Application (DA)

An application for permission to perform works or use land in accordance with the provisions of the Environmental Planning and Assessment Act 1979. A development application typically consists of:

- plans and drawings of the proposed development
- a Statement of Environmental Effects and other documentation
- a completed application form and fees.

Development Control Plan (DCP)

A policy document that provides more detail than contained in a local environmental plan. DCPs are prepared under section 72 of the Environmental Planning and Assessment Act 1979.

The provisions of a DCP are guidelines that must be considered by the Council when it determines a development application.

A DCP must also be taken into consideration by a certifying authority when determining a complying development certificate application. Complying development must be carried out in accordance with a DCP, and any standards or requirements contained within the DCP have the status of compulsory ‘development standards’.

Dwelling-house

A building that contains only one dwelling.
**Easement**

A legal right held by an owner of land in respect of another land parcel. Easements are commonly created to enable access across other properties, such as for drainage, pipelines, footways, etc.

**Ecologically sustainable development (ESD)**

An approach to development that considers the needs of future generations whilst satisfying present day aspirations, and integrates social, economic and environmental considerations in decision-making processes. Under the Local Government Act 1993, it is part of the Council's charter to promote the following ESD principles and programs:

- **The precautionary principle** - namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- **Inter-generational equity** - namely, that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.
- **Conservation of biological diversity and ecological integrity** - namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration.
- **Improved valuation, pricing and incentive mechanisms** - namely, that environmental factors should be included in the valuation of assets and services.

**Exceedances per Year (EY)**

'Exceedances per Year (EY) - used for events more frequent than one year. For example, 2 EY is equivalent to a design event with a 6 month recurrence interval when there is no seasonality in flood occurrence

**Exempt development**

Development that is declared to be ‘exempt development’ by the Newcastle Local Environmental Plan 2012 or by some other environmental planning instrument.

Exempt development includes minor development having minimal environmental impact. It may be carried out without the need to obtain development consent or a construction certificate. However, exempt development must be carried out in accordance with any requirements of the applicable planning instrument.

**Flooding**

The inundation by water of land that is not usually inundated. Flooding may occur due to a variety of reasons, either separately or in combination. Important types of flooding include:

- **River flooding** - caused when a river or stream overtops its banks onto the floodplain.
- **Flash flooding** - caused by stormwater during an intense rainfall event. This may be due to surface flow, surcharge from piped drainage systems or overflow from man-made stormwater channels.
- **Tidal inundation** - caused by inundation by sea water. This may be due to king tides, storm surge, barometric effects, tsunami, shoreline recession, subsidence, the enhanced greenhouse effect or other causes.
**Grey water**

Wastewater that is not contaminated by faecal matter or pathogens. Commonly, all sewer water is grey water with the exception of water originating from toilets. It may be contaminated by detergents and other common household products liberated by washing.

**Groundwater**

Water that flows thorough the ground soil mass. This is different from soil moisture in that the water below the groundwater table usually saturates the soil and flows from one place to another. Groundwater can reappear as springs or flow along the beds of creeks.

**Gross pollutants**

Large particulate matter not normally found in water including litter and coarse sediment.

**Gully**

Any depression, generally deeper than 0.3m deep in the local topography that conveys or has the potential to convey ephemeral surface water.

**Hydraulics**

The study of the flow characteristics of water in a conduit. In relation to drainage design, hydraulics relates to the characteristics and capacity of flow control devices, open channels and pipes.

**Hydrology**

The science of water interrelationships interactions between water and the environment.

**Infill development**

A general term for new urban development within existing developed areas. It usually involves a more intensive use of the site. Infill development may encompass housing, retail, business, education, community service or industrial activities.

**Impervious surface**

A surface that does not allow rainwater to infiltrate to the soil, such as buildings (roofs), roads, parking areas, courtyards.

**Infiltration**

The process by which rainfall infiltrates the soil and enters the subsurface drainage or groundwater systems.
Integrated development

Development that, in order to be carried out, requires one or more of the approvals listed in section 91 of the *Environmental Planning and Assessment Act 1979* in addition to development consent. Integrated development does not include complying development.

Major drainage system

The part of the public drainage system in an urban area that carries relatively large flows. It consists of the system of streams, floodways, stormwater channels, retarding basins and street pavements. It is generally designed to protect people and indoor property from the effects of an extreme flood.

Minor drainage system

The part of the public drainage system in an urban area that carries relatively minor flows. It consists of the system of kerbs, gutters, roadside channels, swales, sumps and underground pipes. It is generally designed to control ‘nuisance flows’ which occur on a day-to-day basis.

Occupation certificate

A certificate issued by the Principal Certifying Authority that authorises the occupation and use of a new building, or a change of building use for an existing building. Occupation certificates are not required for ‘Class 1a’ or ‘Class 10’ buildings under the Building Code of Australia (for example, detached dwellings, garages and other domestic outbuildings).

On site stormwater detention (OSD)

A stormwater management practice that limits the rate of discharge from a site using outlet restriction devices. Stormwater flows in excess of the capacity of the outflow control device are temporarily stored either in tanks or surface depressions until the storm event recedes. Stormwater flows are released at a controlled rate back to the public drainage system.

On-site stormwater retention (OSR)

Stormwater management practices where on-site stormwater runoff is captured and retained within the site for re-use.

Permissible site discharge (PSD)

The maximum rate at which stormwater is permitted to be discharged from a given site area.

Porous paving

A paving system capable of storing and infiltrating water in accordance with the principles of this manual.

Principal certifying authority

The certifying authority appointed by a person to oversee the construction process. Only the principal certifying authority may issue an occupation certificate.
Public drainage system
A natural drainage channel or a constructed drainage system owned and operated by the Council or the Hunter Water Corporation.

Rill
A depression in the local topography, generally less than 0.3m deep that conveys or has the potential to convey ephemeral surface water.

Riparian zone
An area of river or creek bank. Usually riparian pertains to vegetation typical to this zone. For the purposes of this document and the Water Management Act, it is defined as being 40m from the top bank of the watercourse.

Runoff
The portion of rainfall that flows across the ground surface as water.

Single dwelling/single dwelling-house
A dwelling or dwelling-house located on an allotment of land on which no other dwellings are located.

Site discharge control
A drainage structure that controls the rate of discharge in the most frequent rain events to a predetermined rate in accordance with Council’s policy.

Site drainage line
A piped drain that conveys stormwater from a development site to the public drainage system.

Statement of environmental effects
A statement lodged with a development application that outlines the likely impacts of a development proposal, and the proposed measures to mitigate these impacts.

Stormwater
The runoff from rainfall events.

Soil mass
All solid matter, usually silica based under the surface of the ground including topsoils, sands, clays and rocks.
Soil and water management plan

A plan lodged with a development application that illustrates how stormwater, runoff and soils will be managed on the site. The Plan should demonstrate the feasibility of both the proposed stormwater management system, and the proposed erosion, sediment and water quality controls measures. The plan should be supported by preliminary hydrological calculations and other information in the accompanying Statement of Environmental Effects.

Stormwater surface flowpath

A strip of land carrying concentrated surface flow during a rainfall event, the width, shape and gradient of which is designed to cater for the flow produced by a 1% AEP rainfall event. Includes a flow path from the spillway of an on-site detention system.

Subdivision certificate

A certificate issued by the Council that authorises the registration of a plan of subdivision in the Land Titles Office. At present, accredited certifiers may not issue a subdivision certificate.
References

Sources of information

AS 2865 Safe Working in a Confined Space.


AS/NZS 4058 Precast concrete pipes (pressure and non-pressure)

Australian Rainfall and Runoff, Institute of Engineers Australia 2016


Matthei, L.E. (1995) Soil Landscapes of the Newcastle 1:100 00 Sheet Map, Department of land and water conservation, Sydney


Appendices

Appendix 1 - Intensity Frequency Duration data
Appendix 2 - MUSIC model map (catchment areas)
Appendix 3 - Planning for Erosion and Sediment Control
Appendix 4 - Planting list
Appendix 5 - Asset transfer checklist example
Appendix 6 - Example regular maintenance checklist for bioretention basins
### Appendix 1 - Intensity frequency duration data

#### Average recurrence interval (years)

<table>
<thead>
<tr>
<th>Duration</th>
<th>1</th>
<th>2</th>
<th>5</th>
<th>10</th>
<th>20</th>
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<td>152.65</td>
<td>173.71</td>
<td>193.77</td>
</tr>
<tr>
<td>3 hours</td>
<td>53.10</td>
<td>68.34</td>
<td>88.25</td>
<td>99.01</td>
<td>113.91</td>
<td>133.39</td>
<td>148.21</td>
<td>168.90</td>
<td>188.92</td>
</tr>
<tr>
<td>4 hours</td>
<td>51.60</td>
<td>66.41</td>
<td>85.77</td>
<td>96.24</td>
<td>110.73</td>
<td>129.68</td>
<td>144.10</td>
<td>163.39</td>
<td>182.39</td>
</tr>
<tr>
<td>5 hours</td>
<td>50.20</td>
<td>64.61</td>
<td>83.47</td>
<td>93.66</td>
<td>107.78</td>
<td>126.24</td>
<td>140.28</td>
<td>159.34</td>
<td>176.77</td>
</tr>
<tr>
<td>6 hours</td>
<td>47.68</td>
<td>61.38</td>
<td>79.32</td>
<td>89.03</td>
<td>102.46</td>
<td>120.03</td>
<td>133.40</td>
<td>152.92</td>
<td>169.45</td>
</tr>
<tr>
<td>12 hours</td>
<td>42.60</td>
<td>54.86</td>
<td>70.95</td>
<td>79.67</td>
<td>91.72</td>
<td>107.49</td>
<td>119.50</td>
<td>127.97</td>
<td>143.70</td>
</tr>
<tr>
<td>24 hours</td>
<td>38.73</td>
<td>49.89</td>
<td>64.56</td>
<td>72.52</td>
<td>83.52</td>
<td>97.91</td>
<td>108.88</td>
<td>116.55</td>
<td>130.89</td>
</tr>
<tr>
<td>36 hours</td>
<td>35.65</td>
<td>45.94</td>
<td>59.49</td>
<td>66.84</td>
<td>77.00</td>
<td>90.29</td>
<td>100.42</td>
<td>107.45</td>
<td>120.69</td>
</tr>
<tr>
<td>48 hours</td>
<td>33.14</td>
<td>42.71</td>
<td>55.33</td>
<td>62.19</td>
<td>71.66</td>
<td>84.05</td>
<td>93.50</td>
<td>99.97</td>
<td>112.21</td>
</tr>
<tr>
<td>72 hours</td>
<td>31.04</td>
<td>40.00</td>
<td>51.86</td>
<td>58.30</td>
<td>67.19</td>
<td>78.83</td>
<td>87.70</td>
<td>93.70</td>
<td>105.28</td>
</tr>
<tr>
<td>96 hours</td>
<td>29.25</td>
<td>37.70</td>
<td>48.90</td>
<td>54.98</td>
<td>63.38</td>
<td>74.37</td>
<td>82.75</td>
<td>88.33</td>
<td>99.26</td>
</tr>
<tr>
<td>360 hours</td>
<td>26.35</td>
<td>33.98</td>
<td>44.10</td>
<td>51.22</td>
<td>58.08</td>
<td>64.89</td>
<td>72.04</td>
<td>76.38</td>
<td>84.05</td>
</tr>
<tr>
<td>720 hours</td>
<td>22.96</td>
<td>29.62</td>
<td>38.46</td>
<td>43.28</td>
<td>49.91</td>
<td>58.61</td>
<td>65.24</td>
<td>69.85</td>
<td>78.54</td>
</tr>
<tr>
<td>1440 hours</td>
<td>20.49</td>
<td>26.43</td>
<td>34.34</td>
<td>38.65</td>
<td>44.58</td>
<td>52.36</td>
<td>58.29</td>
<td>62.62</td>
<td>70.43</td>
</tr>
</tbody>
</table>

#### Intensity values

- \( I_{1hr} = 34.0 \text{mm/hr} \)
- \( I_{12hr} = 7.0 \text{mm/hr} \)
- \( I_{72hr} = 2.2 \text{mm/hr} \)

**Technical Manual**

**Stormwater and Water Efficiency for Development** 92
Catchment 1 and 2 are in the SEPP 14 wetland catchment where specific hydrology objectives apply. Standard objectives apply to catchments 3 and 4.
Appendix 3 - Planning for Erosion and Sediment Control

Planning for Erosion Prevention and Sediment Control

When is an Erosion and Sediment Control Plan required?

All builders/developers are required to prepare an Erosion and Sediment Control Plan showing how they will minimise soil erosion and trap sediment that may be eroded from the site during the construction of a building. The complexity of the Plan depends upon the nature and the scale of the particular development, especially the amount of land likely to be disturbed. In the Newcastle local government area, proposals involving disturbed areas larger than 50m² require an Erosion and Sediment Control Plan. Small-scale development, such as house extensions or the construction of standard driveways, may not require a Plan, but should still be undertaken in a manner that reduces pollution risk.

What goes in the Plan & what are my responsibilities?

Responsibilities for stormwater management arise from the Protection of the Environment Operations (POEO) Act 1997. You can comply with the POEO Act by preparing an Erosion and Sediment Control Plan that shows how you will minimise stormwater pollution and implement the Plan after Council approval.

The plan should be a stand-alone document consisting of both drawings and a commentary that can be understood easily by all site workers. This brochure outlines the information to be contained in a Plan for a single residential allotment. Make sure everyone working on the site understands the Plan and how important it is to not pollute stormwater.

The POEO Act gives Council the powers to issue clean up or prevention notices and on the spot fines of up to $1,500. Higher penalties can be imposed for serious pollution incidents, should Council institute legal action. You are required to notify Newcastle City Council when a pollution incident occurs that causes or threatens environmental harm.

Builders/developers have the responsibility to manage the following pollution sources:

- air pollution, including dust emissions;
- noise that might interfere with neighbouring properties;
- discharges, including erosion, leakage or spills of construction materials, soil, sand, gravel slurries and concrete that may enter stormwater;
- trade and domestic rubbish, including litter packaging, off-cuts and spoiled materials; and
- toxic chemicals, including fuels, paints, solvents, sealants, adhesives, lubricants and pesticides.

A number of these matters may be addressed in the Erosion and Sediment Control Plan.

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Compulsory signage for construction sites

Newcastle City Council requires all construction sites to display this sign provided by Council upon approval of a development application.

The sign must be displayed on-site at all times and be visible to the public and site workers.
A Model Erosion and Sediment Control Plan

NOTES

1. Site works are not to start until the erosion and sediment control measures are installed and functional.
2. Entry and departure of vehicles is to be confined to the stabilised site access.
3. Topsoil is to be stripped and stockpiled for later use in landscaping the site. Topsoil is to be respread and all disturbed areas rehabilitated (turfed) within 20 working days of completion of works.
4. The footpath, other than the stabilised site access is not to be disturbed, including stockpiling of materials. Where essential works (eg drainage) are required, the footpath is to be rehabilitated (turfed) as soon as possible.
5. Bins are to be provided for building waste and arrangements are to be made for regular collection and disposal.
6. Roof guttering is to be connected to the stormwater system as soon as practicable.
7. All erosion controls are to be checked daily (at a minimum weekly) and after all rain events to ensure they are maintained in fully functional condition.

LEGEND

- Earth bank
- Undisturbed area
- Barrier fencing
- Sediment fencing
Standard Drawings

**TOPSOIL STOCKPILE**  
**Construction Notes**
1. Where necessary, locate stockpile at least 5 metres from existing vegetation, consolidated watercourses, roads and资产 areas.
2. Contour on the contour as a low, flat, elongated mound.
3. Where there is sufficient area, topsoil stockpiles shall be less than 2 metres in height.
4. Instead locate in accordance with the National Soil Conservation Guidelines.
5. Construct earth bank (Standard Drawing 5-4) on the upwind side to divert run-off around the stockpile and a sediment fence (Standard Drawing 5-3) 1 to 2 metres downstream of stockpile.

**STABILISED SITE ACCESS**  
**Construction Notes**
1. Strip topsoil to depth of 25-30 mm.
2. Cover area with needle-punched geotextile.
3. Construct 200 mm thick layer of geotextile using multidens 50 mm mesh geotextile or 200 mm aggregate, minimum height 19 mm or to building regulation standards (as applicable).
4. Construct barrier immediately within boundary to divert water to a sediment fence or other sediment trap.

**EARTH BANK (LOW FLOW)**  
**Construction Notes**
1. Construct with gradient of 1 on 3 side.
2. Avoid low-lying trees and shrubs if possible.
3. Slope to be of circular, parabolic or triangular cross section suitably shaped.
4. Earth bank to be adequately protected in order to prevent failure.
5. Permanent or temporary stabilisation of the earth bank to be completed within 10 days of construction.
6. All outlets from drained land are to be lined to a sediment basin or diverting channel.
7. Divert water from well-drained land onto either a stabilised or an unlined draining system within the same subcatchment area from which the water originated.
8. Exposed bank to be suitably constructed in situations where they are required. In addition to more than five days.
9. Earth bank to be free of protrusions or other irregularities that will impede water flow.

**SEDITION FENCE**  
**Construction Notes**
1. Constructed with minimum height 100 mm over ground.
2. Drive 1.5 metre long stakes into ground. 2.5 metres apart (area).
3. Dig a 150 mm deep trench along the outline of the fence to the bottom of the trench line on the steel.
4. Fix top supporting geotextile to top of posts with vertical bars or as recommended by geotechnical manufacturer.
5. Join sections of fabric to ensure a smooth finish.
6. Supply the contracts for the fabric and complete it thoroughly over the geotextile.

**Maintenance of Controls**

All erosion and sediment control works should be checked daily (at a minimum weekly) and after each rainfall event to ensure they are working properly. Maintenance might include:

- (i) Removing sediment trapped in sediment fences, catch drains or other areas;
- (ii) Topping up gravel on the stabilised access;
- (iii) Repairs any erosion of drainage channels;
- (iv) Repairs damage to sediment fences.

Remember that the erosion and sediment control works might need to change as the slope and drainage pathway changes during the development phase. Best practice includes anticipation of the likely risks and being prepared for unusual circumstances, e.g., having spare sediment fence material on the site.
WAYS YOU CAN REDUCE EROSION AND CONTROL SEDIMENT ON A BUILDING OR CONSTRUCTION SITE

Follow these site management practices and you will help reduce impact on our waterways and avoid incurring a fine.

1. **DIVERT UPSLOPE STORMWATER**
   Where possible do not divert upslope stormwater around all land that do not have a productive vegetation cover. (See Standard Drawing 5.5, Water Sheet.) Over the ground is one of the most effective causes of soil erosion and should be minimized.

2. **LIMIT DISTURBANCE WHEN EXCAVATING**
   Pressure as much as the vegetation as possible. Vegetation improves the appearance of the site, greatly reduces the erosion hazard and can be a very effective natural sediment filter. The erosion hazard of well-vegetated lands is often less than 1 percent of those that have been cleared.

3. **RESTRICT VEHICLE MOVEMENTS TO A STABILISED ACCESS**
   Restrain all vehicle movements onto the site to a stabilised access as shown on Standard Drawings. This allows all vehicle activity, reduces how much soil is carried to the street and may provide a permanent base for the future driveway.

4. **INSTALL A SEDIMENT FENCE**
   Install sediment fences downstream of all disturbed areas to capture sediment before it gets into the gutters, drains and watercourses. For details on sediment fence construction see Standard Drawing 5.6.

5. **PLACE STOCKPILES BEHIND A SEDIMENT FENCE**
   Place all stockpiles located on the site well away from drainage paths and where they contact explosive materials such as sand and soil, behind a sediment barrier (see Standard Drawing 4.1). Ensure soil and cement bags are covered at the end of each day.

6. **STORE ALL HARD WASTE AND LITTER IN A DESIGNATED AREA**
   Store all hard waste and litter on the site in a way that will prevent it being blown onto surrounding lands or washed into the stormwater system.

7. **LEAVE THE FOOTPATH VEGETATED**
   Apart from the stabilised entrance, maintain a well-grassed (green) footpath. Keeping lands vegetated is the single most important thing that can be done to reduce erosion hazard.

8. **ERECT SIGNAGE**
   Printed Pollution signage provided by Council must be displayed on all construction sites and be clearly visible to the public. This sign explains to builders and sub-contractors their responsibility to prevent water pollution and increases community awareness of pollution issues.

Site Rehabilitation

The rehabilitation of construction sites should be carried out quickly, progressively stabilising disturbed areas with vegetation or landscaping. Maintenance of sediment controls will continue to be necessary until all pollution sources from the site are stabilised (e.g. maintain sediment fences until turf establishes).

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Appendix 4 - Planting List

Lists the major macrophyte plant species that may be used within biofiltration devices in the Newcastle City Council LGA.

Recommended planting density is 5 per square metre. Plant selection is to consider areas of differing wetting and drying regime over the entire device.

<table>
<thead>
<tr>
<th>Emergent Macrophytes for permanent water zones</th>
<th>Growth Form</th>
<th>Max Height</th>
<th>Zone</th>
<th>Growth Rate</th>
<th>Salt Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baumea rubiginosa Soft Twigrush</td>
<td>Rhizomatous</td>
<td>2.0</td>
<td>0-500 Shallow marsh</td>
<td>Slow</td>
<td>Mod</td>
</tr>
<tr>
<td>Bolboschoenus caldwellii Sea clubrush</td>
<td>Rhizomatous</td>
<td>1.0</td>
<td>0-300 Shallow marsh</td>
<td>Fast (Bulb)</td>
<td>Mod-High</td>
</tr>
<tr>
<td>Bolboschoenus fluitatilis Marsh clubrush</td>
<td>Rhizomatous</td>
<td>1.5</td>
<td>0-300 Shallow marsh</td>
<td>Fast (Bulb)</td>
<td>Mod</td>
</tr>
<tr>
<td>Carex appressa Tussock Sedge</td>
<td>Tufted</td>
<td>1.0</td>
<td>Sporadically Flooded Ephemeral zone</td>
<td>slow</td>
<td>Low</td>
</tr>
<tr>
<td>Cyperus exaltatus Giant Sedge</td>
<td>Tufted</td>
<td>2.0</td>
<td>0.300 Shallow marsh</td>
<td>fast</td>
<td>Low-Mod</td>
</tr>
<tr>
<td>Cyperus laevigatus Smooth Flat sedge</td>
<td>Rhizomatous</td>
<td>1.5</td>
<td>0.300 Shallow marsh</td>
<td>Mod</td>
<td>High</td>
</tr>
<tr>
<td>Phragmites australis Common Reed</td>
<td>Rhizomatous</td>
<td>3.0</td>
<td>0-600 Shallow-Deep Marsh</td>
<td>Mod</td>
<td>Mod-high</td>
</tr>
<tr>
<td>Shoeneoplectus mucronatus Bog Bulrush</td>
<td>Tufted</td>
<td>1.2</td>
<td>0-600 Shallow Marsh</td>
<td>Mod</td>
<td>Low</td>
</tr>
<tr>
<td>Shoeneoplectus validus River clubrush</td>
<td>Rhizomatous</td>
<td>2.0</td>
<td>0-400 Shallow Marsh</td>
<td>mod</td>
<td>Low-mod</td>
</tr>
<tr>
<td>Gahnia sieberiana Sawsedge</td>
<td>Tufted</td>
<td>2.5</td>
<td>Sporadically Flooded Ephemeral zone</td>
<td>slow</td>
<td>Low</td>
</tr>
<tr>
<td>Juncus usitatus Common Rush</td>
<td>Tufted</td>
<td>1.2</td>
<td>Sporadically Flooded Ephemeral zone</td>
<td>slow</td>
<td>Low</td>
</tr>
<tr>
<td>Juncus krausii Sea rush</td>
<td>Clump forming</td>
<td>1.5</td>
<td>Sporadically Flooded Ephemeral zone</td>
<td>Slow</td>
<td>High</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bioretention rain garden and swales</th>
<th>Growth Form</th>
<th>Max Height</th>
<th>Zone</th>
<th>Growth Rate</th>
<th>Salt Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carex appressa Tussock Sedge</td>
<td>Tufted</td>
<td>1.0</td>
<td>Base</td>
<td>slow</td>
<td>Low</td>
</tr>
<tr>
<td>Juncus usitatus Common Rush</td>
<td>Tufted</td>
<td>1.2</td>
<td>Base</td>
<td>slow</td>
<td>Low</td>
</tr>
<tr>
<td>Juncus krausii Sea rush</td>
<td>Clump forming</td>
<td>1.5</td>
<td>Base</td>
<td>Slow</td>
<td>High</td>
</tr>
<tr>
<td>Gahnia sieberiana Sawsedge</td>
<td>Tufted</td>
<td>2.5</td>
<td>Base</td>
<td>slow</td>
<td>Low</td>
</tr>
<tr>
<td>Lomandra Longifolia Spiny-Headed Mat Rush</td>
<td>Clump forming</td>
<td>0.7</td>
<td>Base</td>
<td></td>
<td>Mod</td>
</tr>
<tr>
<td>Crinum pedunculatum Swamp lilly</td>
<td>Clump forming</td>
<td>1-2</td>
<td>Base</td>
<td></td>
<td>Mod</td>
</tr>
<tr>
<td>Isolepis nodosa Knobby Club Rush</td>
<td>Clump forming</td>
<td>0.7</td>
<td>Batters / sides</td>
<td>Mod</td>
<td></td>
</tr>
<tr>
<td>Carpobrotus glaucescens Coastal Pigface</td>
<td>Ground cover</td>
<td>0.2</td>
<td>Batters / sides</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Leptospermum Laevigatum Coastal Tea Tree</td>
<td>Shrub</td>
<td>1-2</td>
<td>Batters / sides</td>
<td>Mod</td>
<td></td>
</tr>
</tbody>
</table>
THE FOLLOWING IS A LIST OF MACROPHYTE PLANTS, THAT CAN BE USED TO INCREASE THE BIODIVERSITY OF THE PLANTING AREA, BUT ARE NOT SUITABLE FOR LARGE AREA PLANTINGS

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Type</th>
<th>Height</th>
<th>Water Depth</th>
<th>Growth Rate</th>
<th>Hardiness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alisma plantago-aquatica</strong></td>
<td>Water plantain</td>
<td>Emergent broad leaf, tufted</td>
<td>1.0 0.300 Shallow marsh</td>
<td>fast low</td>
<td></td>
</tr>
<tr>
<td><strong>Philydrum lanuginosum</strong></td>
<td>Wolly frogmouth</td>
<td>Emergent narrow leaf, tufted</td>
<td>2.0 0-2000 Shallow-deep</td>
<td>Mod-fast low</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 5 - Asset Transfer Checklist Example

| Asset I.D.: |   |   |
| Asset Location: |   |   |
| Construction by: |   |   |
| Defects and Liability Period: |   |   |

#### TREATMENT

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>System appears to be working as designed visually?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No obvious signs of under-performance?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### MAINTENANCE

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance plans and indicative maintenance costs provided for each asset?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetation establishment period completed (as per requirements)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspection and maintenance undertaken as per maintenance plan?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspection and maintenance forms provided?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### ASSET INSPECTED FOR DEFECTS AND/OR MAINTENANCE ISSUES AT TIME OF ASSET TRANSFER

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sediment accumulation at inflow points?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Litter within device?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erosion at inlet or other key structures?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic damage present?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of dumping (eg building waste)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetation condition satisfactory (density, weeds)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watering of vegetation required?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replanting required?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mowing/slashing required?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clogging of drainage points (sediment or debris)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of ponding?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Damage/vandalism to structures present?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface clogging visible?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drainage system inspected?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### COMMENTS / ACTIONS REQUIRED FOR ASSET TRANSFER

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

#### ASSET INFORMATION

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Design Assessment Checklist provided?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As constructed plans provided?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copies of all required permits (both construction and operational) submitted?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proprietary information provided (if applicable)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital files (eg drawings, survey, models) provided?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset listed on asset register or database?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signature:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix 6 - Example regular maintenance checklist for Bioretention Basins

(after Landcom Water Sensitive Urban Design Book 4 Maintenance Guidelines)

<table>
<thead>
<tr>
<th>Item</th>
<th>Performance target</th>
<th>Schedule maintenance or investigation</th>
<th>Immediate action required</th>
<th>Comment</th>
<th>Action processed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GPT / trash rack/s</td>
<td>GPT clear of litter</td>
<td>GPT 10 percent full</td>
<td>Greater than 30 percent full</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Inlet structures</td>
<td>Clear and undamaged</td>
<td>Partially blocked observed damage</td>
<td>Mostly blocked Severe damage</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Overflow pits</td>
<td>Clear and undamaged</td>
<td>Partially blocked observed damage</td>
<td>Mostly blocked Severe damage</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Underdrains</td>
<td>Clear and undamaged</td>
<td>Partially blocked observed damage</td>
<td>Mostly blocked Severe damage</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Sediment Forebay</td>
<td>Sediment absent</td>
<td>Sediment accumulation appears excessive</td>
<td>Sediment accumulation to half the basin depth</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Erosion</td>
<td>Erosion absent</td>
<td>Erosion damage visible, but function not impaired</td>
<td>Severe erosion. Damage impairing function of device</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Sediment accumulation (bioretention basin)</td>
<td>Sediment absent</td>
<td>Sediment accumulation appears excessive in sediment forebay. Fine sediment accumulation apparent on bioretention media surface.</td>
<td>Sediment accumulation to half the forebay depth. Coarse sediment or large volumes of sediment accumulation apparent on the bioretention media surface.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Compaction of filter media surface</td>
<td>No compaction evident</td>
<td>Localised compaction or subsidence evident. Localised ponding longer than 24 hours after storm event.</td>
<td>Water remains ponding longer than 24 hours after storm event.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Weeds</td>
<td>No weeds present</td>
<td>Weeds present</td>
<td>Noxious or environmental weeds present, or weed cover more than 25%</td>
<td></td>
</tr>
</tbody>
</table>

*(circle relevant category)*
<table>
<thead>
<tr>
<th>Item</th>
<th>Performance target</th>
<th>Schedule maintenance or investigation</th>
<th>Immediate action required</th>
<th>Comment</th>
<th>Action processed</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Plant condition</td>
<td>Healthy vegetation</td>
<td>Poorly growing or visibly stressed</td>
<td>Die back/dead plants</td>
<td>eg Location (mark on attached map of bioretention basin) Identify species requiring replacement</td>
</tr>
<tr>
<td>11</td>
<td>Litter (organic)</td>
<td>No litter visible</td>
<td>Litter visible</td>
<td>Litter thickly covers filter media surface or detracting from visual amenity</td>
<td>eg Location (mark on attached map of bioretention basin) Note type of litter removed</td>
</tr>
<tr>
<td>12</td>
<td>Litter (anthropogenic)</td>
<td>No litter visible</td>
<td>Litter visible</td>
<td>Litter blocking structures or detracting from visual amenity</td>
<td>eg Location (mark on attached map of bioretention basin) Note type of litter removed</td>
</tr>
<tr>
<td>13</td>
<td>Oil spills/ inflows</td>
<td>No visible oil</td>
<td>Persistent but limited visible oil</td>
<td>Extensive or localised thick layer of oil visible.</td>
<td></td>
</tr>
</tbody>
</table>
ORDINARY COUNCIL MEETING
28 JUNE 2016

CCL 28/06/16
HERITAGE CONSERVATION AREA REVIEW PROJECT

Attachment A: Review of Heritage Conservation Areas Final Report
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## ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AA COMPANY</td>
<td>Australian Agricultural Company</td>
</tr>
<tr>
<td>CSP</td>
<td>Newcastle 2030 Community Strategic Plan</td>
</tr>
<tr>
<td>DCP</td>
<td>Development Control Plan</td>
</tr>
<tr>
<td>EP&amp;A Act</td>
<td>Environmental Planning and Assessment Act 1979</td>
</tr>
<tr>
<td>HCA</td>
<td>Heritage Conservation Area</td>
</tr>
<tr>
<td>HA</td>
<td>Heritage Act 1977</td>
</tr>
<tr>
<td>FSR</td>
<td>Floor Space Ratio</td>
</tr>
<tr>
<td>GFA</td>
<td>Gross Floor Area</td>
</tr>
<tr>
<td>HOB</td>
<td>Height of Buildings</td>
</tr>
<tr>
<td>LEP</td>
<td>Local Environmental Plan</td>
</tr>
<tr>
<td>LHRS</td>
<td>Lower Hunter Regional Strategy</td>
</tr>
<tr>
<td>LPS</td>
<td>Local Planning Strategy</td>
</tr>
<tr>
<td>SEPP</td>
<td>State Environmental Planning Policy</td>
</tr>
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</table>
EXECUTIVE SUMMARY

This report presents the findings of a review of five heritage conservation areas (HCAs) across the Newcastle Local Government Area. The review defines the current heritage significance of each area, produces desired future character statements, assesses the appropriateness of boundaries, examines the development control framework and the relevant planning context, identifies items that contribute to or detract from each area and documents what the community values about these areas. The review also investigated a number of potential new HCAs.

The methodology of the review is based on NSW Heritage criteria as found in the heritage assessment guidelines of the NSW Heritage Council. These guidelines are accepted as the standard methodology for assessing heritage significance. The review also considers the "Heritage Conservation Areas" best practice guidelines of the NSW Heritage Council. A literature review of previous studies and analysis of new information based on fieldworks and community surveys was undertaken. The results of the community surveys are treated as the baseline data to determine the social significance of each HCA.

The final recommendations made in this report are a result of the analysis of the submissions made by the community, agencies, and the survey results conducted by Newcastle Voice, during the exhibition period (1 February - 14 March 2016).

The review finds support from residents of HCAs to maintain the special character of these areas and to maintain existing conservation area boundaries. There was also general support in the community for the creation of proposed new HCAs. The preparation of design guidelines to be included in the Newcastle Development Control Plan (DCP) 2012 is considered to be an appropriate way to reinforce character along with revisions to the Heritage Technical Manual.

The review concludes that Council should develop a program to amend relevant planning controls, ie. the Local Environmental Plan (LEP) and Development Control Plan (DCP) to give effect to the findings of the review. The final recommendations include:

- Amendments to the Cooks Hill, Hamilton South and The Hill Heritage Conservation Area boundaries
- Proposed Heritage Conservation Areas for Glebe Road Federation cottages and Hamilton Residential and additional heritage items in Parkway Avenue and Gordon Avenue Hamilton
- Amendments to the DCP and Heritage Technical Manual to include desired future character statements, contributory building maps and design guidelines.

Assessing land zonings was outside the scope of this review. A review of land zonings is a separate future project. The review itself does not make any amendments to HCA boundaries or heritage listings. Changing conservation area boundaries and heritage listings requires amendments to the LEP. A strict legal process must be followed to amend the LEP. Similarly, recommended changes to the DCP require a formal, legal process. This work will be undertaken as a separate project.
CHAPTER ONE - INTRODUCTION
1.0 Introduction

This report presents the results of a review of five heritage conservation areas (hereafter referred to as HCAs) across the Newcastle Local Government Area, conducted between February 2014 and October 2015. The draft document was publicly exhibited for six weeks between 1 February 2016 and 14 March 2016. The final document has been refined as a result of the exhibition.

HCAs are included in Part 2, Schedule 5 of the Newcastle Local Environmental Plan 2012 (LEP) and identified in accompanying heritage maps to the LEP. They comprise:

- Cooks Hill
- Hamilton South ‘Garden Suburb’
- Hamilton Business Centre
- The Hill
- Newcastle East

The review has also assessed two potential HCAs. These are discussed in Chapter 7 of this report.

The review was prepared by staff of the Strategic Planning Unit, Newcastle City Council. The community surveys undertaken as part of this review were conducted on behalf of Strategic Planning by Newcastle City Council Communications Unit (Newcastle Voice).

A second round of community surveys was conducted through Newcastle Voice as part of the exhibition process in February and March 2016. The results of the engagement are attached in Appendix A.

The project plan comprised the following tasks:

- Review the heritage significance of HCAs in accordance with NSW Office of Environment and Heritage guidelines.
- Identify and define building styles and key elements of heritage value within each heritage conservation area.
- Undertake fieldwork to identify the contributory buildings and identify these using mapping software for publication in the Heritage Technical Manual. Give each building a contributory, neutral or non-contributory rating and define a policy for managing contributory buildings.
- Review the boundaries of the HCAs to ensure they continue to reflect the heritage significance of each and analyse the planning framework including development controls. Examine whether the areas should be managed as individual areas for development assessment purposes.
- Commission a heritage architect to develop a series of design options for the various building styles. These are to be included in the Heritage Technical Manual.
- Conduct a community survey in each HCA to determine what residents value about their particular HCA and what role Council should have in guiding development.

1 The City Centre HCA was recently subject to LEP and DCP amendments by the NSW Department of Planning. It was therefore determined to be outside the scope of this review.
• Consult with the architectural and building design industry on appropriate design options for the Newcastle DCP and Technical Manual.

1.1 Purpose of this report

This report brings together the findings of the conservation area review project and presents the information as a consolidated heritage review report. The report makes recommendations for managing HCAs into the future.

The draft document was reported to Council on 24 November 2015 where Council resolved to place the document on public exhibition for a minimum period of six weeks. Submissions received have been used as the basis of the final recommendations.

1.2 Newcastle 2030 Community Strategic Plan

Newcastle 2030 is a shared community vision developed as a guide to inform policies and actions throughout the city for the next twenty years. To guide the city forward, seven strategic directions have been set to guide the implementation of this vision. This project aligns with the Newcastle 2030 Community Strategic Plan (CSP) principles, and will contribute to a liveable and distinctive built environment, vibrant and activated public places and open and collaborative leadership.

- **Liveable and Distinctive Built Environment**
  - An attractive city that is built around people and reflects our sense of identity
  - A built environment that maintains and enhances our sense of identity
  - Mixed-use urban villages supported by integrated transport networks
  - Greater diversity of quality housing for current and future community needs
  - Best practice energy and water efficient buildings and infrastructure

- **Vibrant and Activated Public Places**
  - A city of great public places and neighbourhoods promoting people’s health, happiness and wellbeing.
  - Public places that provide for diverse activity and strengthen our social connections
  - Culture, heritage and place are valued, shared and celebrated
  - Safe and activated places that are used by people day and night

- **Open and Collaborative Leadership**
  - A strong local democracy with an actively engaged community and effective partnerships.
  - Integrated, sustainable long-term planning for Newcastle and the Region
  - Considered decision-making based on collaborative, transparent and accountable leadership
  - Active citizen engagement in local planning and decision-making processes and a shared responsibility for achieving our goals
  - The City of Newcastle: a local government organisation of excellence

Through the CSP, the Newcastle community has expressed its aspiration that moving towards 2030, local heritage will be valued, enhanced and celebrated. Overall, Council aims to ensure that the significant aspects of the City's heritage are identified, cared for, celebrated and appropriately managed on behalf of residents and visitors of Newcastle. The intention is to ensure that decisions about heritage places are made with due regard to heritage significance, and that opportunities to strengthen or better appreciate heritage significance are undertaken.
1.3 **Alignment with Newcastle Heritage Strategy 2013-2017**

The Newcastle Heritage Strategy 2013-2017 provides a framework for Council to work towards achieving the aspirations of the community articulated in the 2030 Community Strategic Pan. The Heritage Strategy is a strategic framework to guide Council’s approach to the management of heritage in the Newcastle local government area. It is drawn from the principles of the Newcastle 2030 Community Strategic Plan (Revised 2013) and the Newcastle Heritage Policy 2013. The Heritage Strategy 2013-2017 provides detailed actions and an implementation framework based on the key strategic directions of the CSP and Newcastle Heritage Policy 2013.

This review delivers on the following strategies:

*Strategy 1 - Knowing our heritage - enhancing our community’s knowledge of and regard for local heritage items and places*

*Strategy 2 - Protecting our heritage - Council will protect and conserve the City’s heritage places for the benefit of everyone*

*Strategy 3 - Supporting our heritage - Council will protect the integrity of heritage places by ensuring consistent and sympathetic uses, physical and aesthetic treatments and outstanding interpretations*

*Strategy 4 - Promoting our heritage – Newcastle’s significant heritage places are a unique historical resource and represent an asset for the continuing educational, cultural and economic enrichment of the region.*

1.4 **What is a heritage conservation area?**

A heritage conservation area is a geographic area recognised for a range of physical characteristics that collectively have been found to have heritage significance. HCAs are usually identified through a heritage study process or comprehensive heritage assessment and will exhibit a range of heritage values that the community deems is worthy of preservation. Heritage conservation areas are typically distinguished from other places and surroundings by their history, streetscapes, landscape or other physical attributes that are deemed to have heritage value.

Heritage conservation areas are more than a collection of individual heritage items. According to the NSW Heritage Council, they are places in which the historical origins and relationships between various elements creates a sense of place that is worth keeping.²

Depending on the degree of heritage significance, heritage conservation areas may be statutorily recognised in national, state and local heritage registers. In New South Wales, there are heritage conservation areas listed on the NSW State Heritage Register subject to the provisions of the NSW Heritage Act 1977, including Braidwood and the Rocks precinct. At the local government level, HCAs may be included in the heritage schedules of LEPs. In such cases, the standard instrument heritage provisions of the NSW Environmental Planning and Assessment Act 1979 apply and will govern the circumstances in which development is permitted.

---

A heritage conservation area is determined by examining its heritage significance and by identifying the special characteristics that make up that significance. These characteristics can include the subdivision pattern, the consistency of the building stock, or common building and construction materials. Heritage conservation areas will usually demonstrate aspects of our cultural, economic and social history, and patterns of change and development over time. These elements will provide evidence of how Australians have responded physically, emotionally, socially and architecturally to their environment; and how places have been occupied, used, ignored, refined, degraded or associated with Australian history over time.

1.5 Conservation principles
As the second oldest city in the State, Newcastle’s heritage is embodied in its history of work and industry, its historic buildings, its rich cultural landscape and working harbour. This heritage contributes to Newcastle’s identity as an important place of maritime and economic activity, and to its identity as a place which has a rich social fabric, and an interesting environment.

The approach to managing change to a HCA is derived from the Australia International Council on Monuments and Sites (ICOMOS) Charter for Conservation of Places of Cultural Significance (The Burra Charter). The Burra Charter is the foundation of the heritage conservation sector in Australia and is the industry standard for managing change to heritage places. This review of heritage conservation areas is based on the following Burra Charter approaches:

- Change should be based on an understanding of heritage significance.
- Change should respect the heritage significance of the item, site, streetscape and/or area.
- Change should be managed in accordance with an appropriate conservation policy.

A key principle is that the sum of the parts is equally important as the individual features themselves and explains why the cumulative impact of change is an important consideration. This is often not well understood. Where buildings positively reinforce the character of a HCA, they will need to be retained to conserve the significance of the HCA.

1.6 How are heritage conservation areas determined?
Heritage conservation areas are determined using an objective, evidence based process established by the Burra Charter of Australia ICOMOS\(^3\). Under the methodologies contained in the Burra Charter, the significance of an area is defined and assessed, typically through a heritage study or community based heritage study, and its comparative values are established. This is achieved by applying the NSW Heritage criteria, which is defined under the NSW Heritage Act 1977.

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1.7 Contributory buildings

There are three levels of contribution that buildings can make in a HCA. The contribution of any particular building to streetscape, character or heritage significance will guide the approach to development and assist in determining the degree of change that will be permitted. Each level of contribution is explained in the table below.

This review has undertaken field surveys to identify the contribution of every building in each HCA and Contributory building maps have been prepared. These maps are to be inserted into the Heritage Technical Manual, and published on Council's website. It is intended that these maps will be updated annually.

<table>
<thead>
<tr>
<th>Contributory buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributory buildings make a significant contribution to the character of heritage conservation areas and streetscapes. Typically they will retain a high proportion of original features and alterations are generally reversible. Contributory buildings are an important resource for the interpretation and understanding of the history and development pattern of the area. Such buildings will contribute to the overall heritage value of the area. The appearance of a principal or significant frontage should be retained, with alterations and additions located at the rear of contributory buildings.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neutral buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral buildings do not contribute or detract from the significant character of the heritage conservation area or streetscape. They include buildings that are associated with an area’s historic development but may have been altered, or their intactness reduced over time. Neutral buildings may also be new sympathetic development or infill that sits well within a streetscape. It is preferable to keep such buildings and restore elements to increase the contribution of the buildings to the streetscape.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non Contributory buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-contributory buildings are intrusive to the streetscape of a heritage conservation area owing to their inappropriate scale, bulk, setback, roof treatment, atypical garage arrangements or materials. Non-contributory buildings may detract from the heritage conservation area streetscape and are suited to redevelopment. The redevelopment of non-contributory buildings provides an opportunity for new development to reinforce the character of the area. Non-contributory buildings provide locations for appropriate infill development.</td>
</tr>
</tbody>
</table>

1.8 Methodology

The NSW Heritage criteria, defined in the NSW Heritage Act 1977, are the foundation of the NSW heritage assessment system and are enshrined in the heritage assessment guidelines of the NSW Heritage Council. This review is based on these guidelines, as the standard methodology for assessing heritage significance. The document "Heritage Conservation Areas", best practice guidelines of the NSW Heritage Council was also used.

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This review has conducted a literature review of previous heritage studies relating to the heritage conservation areas, and an analysis of new information, including the results of the fieldwork, historical updates, and the community surveys.

An important element of heritage significance is social value - that is, the esteem people place on an item or HCA. In order to seek the views of each community residing in the HCAs in a robust and objective manner, the review has included a series of community surveys. These surveys were conducted on behalf of the project team by Newcastle Voice, and the results are included within each HCA chapter. The results have been treated as the baseline data to explore the social significance of each heritage conservation area.
CHAPTER TWO -
COOKS HILL
HERITAGE CONSERVATION AREA
2.1 Introduction

This report presents the findings of the review of the Cooks Hill Heritage Conservation Area. The current boundaries and location of the Cooks Hill HCA are as reproduced in Figure 2.1.

Figure 2.1 - Cooks Hill HCA - current boundary
2.2 Heritage Status - Cooks Hill

Cooks Hill was first listed as an Urban Conservation Area by the National Trust of Australia (NSW) on 27 April 1981. The area extended in a southerly direction from Laman Street to Bull Street, and was bounded to the east by Railway Street and to the west by Union Street.

The area was included in the heritage schedule of Newcastle Local Environmental Plan 1987 as Amendment No. 52, Government Gazette 3 July 1992 as “HCA”. The Hill and Newcastle East Heritage Conservation Areas were gazetted at the same time. Following a resolution of Council in 1996, the boundaries of the Cooks Hill Heritage Conservation Area were extended, with changes gazetted on 21 June 1996 and 19 September 1997 to include the area south of Bull Street through to Young Street, including Centennial Park.

At the time of its gazettal, Council adopted Development Control provisions for The Hill, Cooks Hill, and Newcastle East within DCP 44. Council also at that time adopted guidelines developed in 1996 by Godden Mackay Heritage Consultants, in a study to extend the heritage areas.

2.3 History

This history is drawn from a number of secondary sources including histories compiled within heritage impact assessments, heritage studies and previous Council documents. The reports are available in the Local Studies Collection of Newcastle Region Library.

Settlement in Cooks Hill was initiated in response to demand for housing for the coal miners who worked the Australian Agricultural Company’s pits east of Darby Street. The AA Company’s first mine, the A Pit, was established in 1831 near the corner of Church and Brown Streets, followed shortly after by the opening of the B Pit in 1835 at the eastern end of Pitt Street (now Queen Street). It was the B Pit, together with the C, F and Sea pits that led to the urban development of Cooks Hill. The most prolific of these pits, the Sea pit, opened in 1888 to the east of Darby Street (near Nesca Park) and it operated until 1916. At its peak, the Sea pit employed 790 men under ground and 160 above. Railway lines in Brooks Street transported the coal from these pits to the harbour.

The demand for housing and the increase in population in Cooks Hill led the AA Company to start to divide up their land holdings to sell to their workers. The chief surveyor of the AA Company, George Elder Darby, was handed the task of laying out town allotments of the company’s estate. The first auction was held in April 1853 and comprised thirty-two quarter acre lots in Darby Street which sold for £30 each. Many of the purchasers were miners employed in the nearby mines.

Early residential development in Cooks Hill was situated east of Bruce Street and north of Bull Street. West of Bruce Street development was prevented by swampy land and the presence of the Newcastle Coal and Copper Company's railway, which brought coal from mines in the Burwood estate (Merewether). Built in 1851 the railway cut a swathe through the AA Company's lands, and was a significant catalyst in the breaking of the AA Company's monopoly on the mining and sale of coal. Coal continued to be hauled to the port along this railway until the mid-twentieth century.
The historical and associative significance of the railway should not be underestimated. The line was the Burwood Coal and Copper Company Railway built by Sir Thomas Mitchell. The Newcastle Industrial Heritage Association helps us grasp the immense historical significance of the remnant railway line running through Cooks Hill as attested in this grab:

In 1835 **Sydney doctor and businessman James Mitchell** purchased about 900 acres of coastal land extending from the far side of Merewether ridge to Glenrock Lagoon. He named the property the Burwood estate, after his wife's family home in London and later extended it to 1,834 acres. In 1842 Ludwig Leichhardt visited the Burwood estate and drew up the stratigraphy of the coastline. Leichhardt may also have established the extent of the coal seams under Mitchell's property, as it was not long after Leichhardt's visit that Mitchell commissioned a tram/road tunnel through Burwood ridge (now Merewether ridge). Known as 'Mitchell's tunnel' the historical events surrounding its construction make it one of the most significant sites in NSW. It was partly due to the tunnel's construction that coal mining in Australia was opened up to independent mining, which in turn led to the Hunter's establishment as a coal-mining centre. It was also the first tunnel of its type to be constructed in Australia.

**Mitchell** publicly claimed construction of the tunnel was to allow access to Burwood Beach so he could build a salt works. In private, however, it appears Mitchell was planning to overturn the Australian Agricultural Company's (AACo) Government supported monopoly on coal mining. He had already approached Governor Gipps with several requests, including: that the Metallic Ores Act be repealed, allowing copper ores to enter NSW duty free; that Newcastle be made a free port so private vessels could enter the estuary without restrictions; and that he be permitted to mine and use coal from his estate as fuel for a copper smelter. Gipps agreed to the first two requests but felt he had no power to agree to the third.

Despite this set back, Mitchell continued with his tunnel project and commissioned its construction in 1846. It was constructed directly into a coal seam, located in line with present day Merewether Street. Work was carried out from both ends with the point of meeting marked by an obvious change in direction of the pickaxe marks. The roof was high enough to accommodate a horse team. Two to three thousand tons of coal were extracted, which Mitchell could do nothing with due to the AACo monopoly.

The **AACo** and the Government were also under a great deal of pressure from other quarters to relinquish the monopoly. A number of people operated small mines in the district in defiance of the monopoly, which the AACo mostly ignored. However, a former employee of Mitchell's mining near East Maitland, a Mr James Brown, brought the matter into the public domain when he directly undercut the AACo price to supply coal to steamships at Morpeth. He was subsequently prosecuted. The Government's legal advice after this case was that they would have to individually prosecute every other person involved in such activities. The then Governor, Fitzroy, expressed the opinion that the AACo should bear the costs of these prosecutions. In 1847 the NSW Legislative Council appointed a Select Committee to investigate the matter further. This was known as the Coal Inquiry, and both Mitchell and Brown gave evidence; Mitchell in relation to his tunnel, Brown in relation to price-cutting.

Before the committee could issue any recommendations the AACo gave in and relinquished its monopoly. Mitchell proceeded to lease out the coal rights on the Burwood estate, with five mines being quickly established by J & A Brown, Donaldson, Alexander Brown, Nott and Morgan. However, the AACo owned the land between the Burwood estate and the Port of Newcastle and refused to allow Mitchell to transport coal by rail across its land. Mitchell lobbied the Government again and in 1850 a Private Act of Parliament Mitchell's Tram Road Act (the first in NSW) was passed finally allowing him to carry coal through AACo lands. (http://www.niha.org.au/staticpages/index.php/20110830001925853/print Accessed 1/04/2016)
What is most interesting is that the AA Company’s monopoly ended with the first ever Private Act of Parliament in NSW in 1850. What also happened was a change in thrust of the company who began to hedge their bets by benefiting from land sales in hiving off parcels on Lake Macquarie Road (now Darby Street).

Still, the AA Company remained capitalised in Newcastle’s inner area until the early 20th century. The AA Company provided land and money for the building of St John’s Anglican Church in 1857, together with a rectory and a school. With the employment provided by the mines by 1861, there were 22 houses in the area, which were a mix of brick and timber miners’ cottages. Many of the streets started to be formally named after men connected to the AA Company including Darby, Dawson, Bruce, Corlette, Parry and Bull Streets. As the population continued to grow it came to be dominated by small cottages and closely built terrace houses that were said to resemble the workers’ housing of English industrial cities.

Sales brochures of the 1860s reveal insights into the cost and nature of housing in Cooks Hill. In the early 1860s, a two storey wooden cottage on Bruce Street could be bought for £250, and were marketed to the workers of the area. As is now, affordability was inextricably connected to job security and hence house styles that survive reflect broader economic shifts.

In Cooks Hill we see a diverse mix of styles and building forms as a result of economic cycles and fashions - what’s cool. The national recession of 1890, the Edwardian spurt of 1900, the Inter-war era, the post war boom and later conservation movement in the 1970s instigated by the residents of Cooks Hill (including the late Anne Von Bertouch) have all made a stylistic mark on the built form of Cooks Hill and created a citizen culture that is pervasive and enduring.

Development accelerated in the 1870s when investors began to build rental accommodation, shops, hotels and factories. By 1870, Darby Street had five hotels, a foundry, nineteen shops with adjoining residences, two surgeries with residences and numerous houses. Referred to as the “drinking man’s paradise”, at one time there were ten hotels in Cooks Hill. By the 1880s, Cooks Hill was firmly established as a thriving village and was officially named Cooks Hill in 1885 following the opening of the Cooks Hill Public School in Laman Street. The name Cooks Hill is reputed to be derived from Thomas Cook, a wealthy owner of an impressive residence that stood at the rise of land at the intersection of Auckland and Laman Streets.

In 1864, five acres of AA Company land between Melville (Union) and Bruce Streets was leased to the Newcastle Cricket Club for the establishment of a cricket ground. The first match was played in 1867. Catering to the demand for after-match drinks between opposing teams, the Cricketer’s Arms hotel was constructed in 1869 was constructed on the west side of Bruce Street just south of Bull Street (opposite the current day Cricketer’s Arms). The Oriental Hotel was also erected at this time on the corner of Bull and Bruce Streets. In 1889, the Newcastle Cricket Club voted to provide members a lawn bowling facility, with the City Bowling Club established on the southern end of the cricket ground. In 1888 the AA Company set aside 5.5 acres of land for a park as a centennial gift.
and aptly named Centennial Park. Terrace houses, a benevolent asylum and a lying-in hospital were built on the north edge of the park along Parry Street.

The presence of Centennial Park brought increased property values in its vicinity. Although Cooks Hill had evolved as an essentially working class suburb, there were many middle class residents such as William Arnott the biscuit maker, whose own family home was built on Union Street and who lived in Cooks Hill. Many fine houses were also built throughout the Cooks Hill in the 1880s and beyond.

In 1880, St Andrews Presbyterian church was built at the corner of Laman and Auckland Streets to a design by the prominent architect Frederick Menkens followed by another of Menken’s commissions in 1889 with the building of the Baptist Tabernacle.

The last of the AA Company’s mines in the area closed in 1916 and this saw many of the miners move to other coal fields in the Hunter Valley. However, the proximity of Cooks Hill to the city and services meant that it remained popular with workers. The AA Company sold the last remaining parcels of land in the early decades of the 20th century, including the cricket ground with the exception of the cricket pitch which remains to this day as a pocket park on Corlette Street.

By the end of the 1920s, Cooks Hill was a suburb of mixed fortunes. Dilapidated old houses and ‘tenements’ were often adjoined by new and more modern buildings. Many tenements were demolished after the war and many lots were re-subdivided and redeveloped.

By the 1960s, Cooks Hill was becoming a desirable place for people wanting to live close to the city centre. Demographic change led to a property boom in the 1970s, and the battle to conserve the suburb began, led by Anne von Bertouch who restored her home and art gallery on Laman Street. The earthquake of 1989 destroyed many buildings and many more were damaged. In 1992, the suburb was heritage listed by its inclusion in the Newcastle Local Environmental Plan.
2.4 Physical Description

There are a number of physical elements in Cooks Hill that date from the 19th and early 20th centuries and provide it with a distinctive historic character. These elements represent more than 160 years of residential development:

- The variety of building styles throughout Cooks Hill that date from the nineteenth and early twentieth century including attached terrace houses and semi detached cottages, Victorian period villas and early twentieth century detached bungalows in various styles
- Minimal street frontage setbacks that give the impression of a densely clustered neighbourhood
- Mature trees in gardens and streets including Council, Parry, Swan and Dawson Streets
- The former Burwood Coal and Copper Company rail line and bridge abutments under Laman Street
- Fences from the Inter-war and Federation periods and earlier
- Sandstone kerbs and gutters
- Victorian era post box on Corlette Street
- Pubs and shops on Darby and Bull Streets
- Parks, including Centennial Park, Corlette Street reserve (formerly the Newcastle Cricket Club pitch), National Park.

Cooks Hill contains comparatively dense residential development at the northern edge between Laman and Bull Streets and houses are generally aligned with the street boundary or have only a small setback from the front boundary. Smaller lots of land dominate the northern precinct whereas the southern section contains larger blocks of land where there are a higher number of free standing houses around Centennial Park and towards Young Street.

Figure 2.3 - Georgian style attached terraces on Queen Street
One of the most significant features of Cooks Hill is the evidence of the route of the Burwood Coal and Copper Company railway, which is evident in the layout of houses and the shape of streets and lanes. The route of the railway line has left an indelible impression on the suburb to the present day. Laman Street could not be constructed until after the Company built a bridge to support the extension of the road, allowing coal trains to pass underneath.

**Precincts in Cooks Hill**

In 1996, Council commissioned Godden Mackay Pty Ltd to assess the character and heritage significance of the area. The report found that there are five areas within Cooks Hill that have a distinctive character. The report describes these areas as precincts to the extent to which they define the character of each. However, for the purposes of development assessment, the report did not assign individual controls or design guidelines to the individual precincts the report identified. Instead, generic guidelines were developed for the whole of the conservation area which were adopted as "DCP 44 Conservation Area Guidelines" in 1996. This review finds that the controls should continue this approach because it is simple to apply and takes into account the generally eclectic nature of Cooks Hill.

The question of what controls should apply and whether these can be customised to individual streets or precincts was canvassed with the Building Design Industry Reference Group in May 2014. The consensus of the Group was that the DCP acknowledges these variations in house type and streetscape character and is an appropriate means of managing character, supporting and encouraging design innovation and creativity. The Group provided feedback that precinct based controls were unnecessary, preferring instead a series of design guidelines that could be applied depending on the situation. Consequently, it is not recommended that the controls be broken down into precinct based controls. The review finds that such an approach would burden the development assessment process with additional, unnecessary complexity.

**The Residential Precinct**

Cooks Hill as a whole is essentially residential in character, typified by a mixture of single storey and two storey buildings providing residential, commercial and public uses. It has a dense quality bestowed by the fact the houses are generally not set back from the street or have small front gardens. Especially distinctive are the cantilevered balconies of Victorian Regency houses and the prevalence of timber weatherboard dwellings including free standing cottages and terrace houses. Also notable are the variety of architectural treatments that survive from the late 19th and early 20th centuries in the form of parapets, pediments, classical detailing and cast iron filigree decoration. The avenues of street trees within Cooks Hill are also significant and are valued by residents and visitors to the area.

**Darby Street Commercial Precinct**

Buildings in the commercial strip of Darby Street tend to be modestly scaled, almost entirely one or two storeys high with some multi level buildings of more recent construction. For detailed guidelines in relation to this precinct refer to Section 6.09 of the DCP 2012.
Railway Street Residential Precinct
Railway Street has a distinctive character of two storey houses, some single storey detached houses, which address each other across a narrow north-south street. The narrowness of the thoroughfare gives it a pleasant linear quality. There are few front gardens with most houses being built to the street line. Unity is bestowed by a general harmony of scale and by the use of traditional materials, corrugated iron roofs, terrace houses and some fine examples of buildings from the 1860s are particularly notable.

![Figure 2.4 - Houses on Railway Street Cooks Hill](image)

Public Buildings Precinct
This is dominated by the St. Andrew's Presbyterian Church, the splendid gothic landmark, and the Baptist Tabernacle. The Laman Street underpass visible with large brick buttressed retaining walls at the end of Glovers Lane and at the rear of the Signalman's cottage, is an important physical remnant of the former coal railway.

School Precinct
The Federation period buildings of the former Cooks Hill primary school group are a strong presence in the precinct and also have landmark qualities at the slight elevation of Laman Street.

2.5 Previous Heritage Studies
The heritage value of the inner suburbs of Newcastle has been recognised since the 1960s. On 30 October 1978, the National Trust of Australia (New South Wales) resolved to classify both The Hill and Newcastle East as an "Urban Conservation Area" (see Figure 5.2). The 1978 listing boundary determined by the National Trust became the same boundary that was later gazetted into the Newcastle LEP as the statutory boundary of the Hill and Newcastle East Heritage Conservation Areas.
Soon after the National Trust listing, the area was also included on the Register of the National Estate by the Australian Heritage Commission as the "Newcastle Conservation Area", in 1979.

In 1982, Council commissioned the firm Suters Busteed + Lester Firth to assess the character and heritage significance of Cooks Hill, The Hill and Newcastle East areas. The purpose of the study was:

- To identify and conserve the environmental heritage of the inner city of Newcastle.
- To provide rehabilitation and infill guidelines for this area, and
- To provide a draft development control plan for urban conservation, including the identification of public works.

The major emphasis of the study was to enable policies and objectives for conservation management to be incorporated in detailed development controls for the area. The area was regarded by Council as a key aspect of the city's physical identity and heritage.

The draft study was called the Newcastle Inner Areas Conservation Planning Study and was placed on public exhibition in September 1985. The study contains invaluable urban planning and heritage documentation and is available for viewing in Newcastle Region Library. The Newcastle Inner Areas Conservation Planning Study remains an invaluable baseline document for managing the heritage values of the areas.

The areas identified were eventually listed as heritage conservation areas in the Newcastle Local Environmental Plan, Amendment No 52 in 1992. In 1997, Council adopted development control guidelines in the form of DCP 44 - covering Newcastle East, The Hill and Cooks Hill. The DCP introduced principles and objectives to facilitate the protection and management of the built environment within each precinct.

In 2005, a study of proposed heritage conservation areas was commissioned by Council\(^5\). An area just outside of the east boundary of Cooks Hill was assessed as part of this study. This area was around Anzac Parade, Kitchener Parade and extended up to Bingle and High Streets in The Hill. It was a recommendation of the study that the area be formed as a heritage conservation area with the name Shepherds Hill, however the study was not reported to Council and no further work was progressed.

\(^5\) Ecotecture (2005), Review of Potential Heritage Items - Group 1 Final Report, prepared on behalf of Newcastle City Council
2.6 Assessment of Cultural Significance

Applying the NSW Heritage Criteria

In revising the heritage significance of the area, the NSW Heritage criteria have been applied as expressed below:

- **Criterion a - An item is important in the course, or pattern, of NSW’s cultural or natural history:**

  Cooks Hill Heritage Conservation Area represents a pattern of urban settlement that typifies the history of Newcastle’s development. Starting as a cluster of coal mines owned by the Australian Agricultural Company, the area gradually transitioned into a residential suburb from the mid-19th century onward, closely influenced by the decisions and activities of the Australian Agricultural Company. The AA Company began disposing their land holdings in the early 1850s, releasing parcels along Darby Street, Council Street and Railway Street. Examples of early residential and commercial buildings in these streets survive to the present day, representing the oldest development in the suburb of Cooks Hill. Other parts of the suburb were released later in the 19th century and into the 20th century. By the 1890s Cooks Hill was densely settled and had acquired the character of a worker’s village with services and public buildings along Darby and Bull Streets and the suburb is demonstrative of this criterion at the local level.

  The internal street network in Cooks Hill was progressively dedicated to public use by the AA Company from the 1860s to the 1880s. Private housing would usually follow this dedication and as many of the buildings in Cooks Hill are the original buildings on the land the heritage conservation area is demonstrative of these times of dedication.

- **Criterion b - An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW’s cultural or natural history:**

  Cooks Hill has been the birthplace and home of significant individuals who have contributed to the political and cultural life of Australia including the nation’s first female Lord Mayor Joy Cummings, gallery owner Ann Von Bertouch, and celebrated artists John Olsen and William Dobell. Historically Cooks Hill is strongly associated with the Australian Agricultural Company.

- **Criterion c - An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW:**

  Cooks Hill is a defining visual marker of the urban geography of Newcastle, containing a collection of buildings, trees, historical features and parks that visually establish a sense of place that is aesthetically linked to its history. The avenues of street trees provide an attractive green canopy that is a unifying visual element. Starting as a cluster of coal mines from the 1830s, the area gradually transitioned into a residential suburb from the mid 19th century onward, closely influenced by the decisions and activities of the Australian Agricultural Company. Aesthetically, Cooks Hill heritage conservation area contains an important collection of elements that share aesthetic characteristics that establish a strong historical character and sense of place. These elements are:
- Buildings that represent architectural styles and construction technologies predominantly from the mid19th century, as well as Victorian, Federation, and Inter War periods of urban development.
- Streetscapes in which there is a strong character of densely clustered buildings, with minimal setbacks and generally on small lots.
- Mature fig trees which deepen the sense of place and the historical character of Cooks Hill.
- The variety of building styles throughout Cooks Hill that date from the nineteenth and early twentieth century including attached terrace houses and semi detached cottages, Victorian period villas and early twentieth century detached bungalows in various styles.
- Minimal street frontage setbacks that give the impression of a densely clustered neighbourhood.
- Mature trees in gardens and streets including Council, Parry, Swan and Dawson Streets.
- The former Burwood Coal and Copper Company rail line and bridge abutments under Laman Street.
- Fences from the Inter-war and Federation periods and earlier.
- Sandstone kerbs and gutters.
- Victorian era post box on Corlette Street.
- Pubs and shops on Darby and Bull Streets.
- Parks, including Centennial Park, Corlette Street, National Park.

- Criterion d - An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons:

  Cooks Hill is highly regarded by the community for its interesting urban character, liveable streetscapes, and the diverse range of historic buildings that unify and provide the suburb with a special character. A 2014 community survey confirms that there is an established and distinctive ‘Cooks Hill’ character which is valued by residents and visitors to Cooks Hill. Cooks Hill meets this criterion as there is a high degree of esteem held by the resident community and strong attachment to the character of the area, the streetscape, buildings and public open space. The area meets this criterion on cultural grounds at the local level.

  The conservation movement of the 1970s instigated by the residents of Cooks Hill (including the late Anne Von Bertouch) have all made a stylistic mark on the built form of Cooks Hill and created a citizen culture that is pervasive and enduring.

- Criterion e - An item has potential to yield information that will contribute to an understanding of NSW’s cultural or natural history:

  Given the rate of survival of key elements of the early urban settlement of Newcastle, including its ability to demonstrate elements of the early development of Newcastle as well as the system of land subdivision by the Australian Agricultural Company from the 1860s onwards, the area has the potential to yield information that will contribute to understanding aspects of Newcastle’s
cultural history. There are numerous building styles ranging from early Victorian terraces through to post war residential flat buildings. A high number of contributory buildings help to establish the streetscapes of Cooks Hill, along with the hotels, shops, churches, schools and parks.

- **Criterion f - An item possesses uncommon, rare or endangered aspects of NSW’s cultural or natural history:**

  The area has the capacity to demonstrate rare and uncommon aspects of local heritage as the first of the Australian Agricultural Company’s land holdings to be released for urban development. Some of these aspects are quite unusual including the evidence of the route of the Burwood Coal and Copper Company railway, the Signalman’s cottage at Civic park, and many surviving small miners’ cottages.

- **Criterion g - An item is important in demonstrating the principal characteristics of a class of NSW’s cultural or natural places or cultural or natural environments:**

  Cooks Hill contains many surviving elements of the mid-late 19th and early 20th centuries and the processes of urbanisation including land subdivision, street layout and varying building types that reflect a long period of urbanisation. It demonstrates these characteristics in its elements including building stock setting, scale and form of buildings, street layout including laneways, and heritage items and parklands.

### 2.7 Comparative Assessment

Cooks Hill is demonstrative of the ad-hoc land release prerogatives of the Australian Agricultural Company and demonstrates through its irregular subdivision pattern this aspect of its history. As such, it is a unique example of a place reserved for coal mining that would become one of the earliest suburbs of Newcastle.

### 2.8 Threatening Processes

In terms of the processes that undermine the character of Cooks Hill, the principle threat is arising from the demolition of contributory building stock. The character and heritage significance of Cooks Hill would be lost if large numbers of contributory buildings were removed. It stands to reason that maintaining a control on demolition and building alterations is an essential tool for managing the character of the Heritage Conservation Area into the future.

### 2.9 Desired Future Character Statement

This review has gathered data on the elements of heritage value in Cooks Hill, the features that establish character and provide a sense of place, and the views of the building design industry and residents. As a result of this work, a **statement of desired future character** has been prepared. It is proposed to include the statement in the DCP as a clear guide for development assessment and design planning.
The character of the Cooks Hill Heritage conservation area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Cooks Hill will be preserved, celebrated and maintained through the retention of contributory buildings, the existing subdivision pattern, and elements of visual interest. Elements that are to be preserved include:

- Contributory buildings constructed prior to the second world war
- Mature trees in gardens and the public domain
- The former Burwood Coal and Copper Company rail line and bridge abutments at Laman Street
- Heritage Fences
- Sandstone kerbing and guttering
- Victorian era post box on Corlette Street
- Pubs and shops on Darby, Union and Bull Streets
- Parks, including Centennial Park, Corlette Street, National Park

The eclectic character of Cooks Hill will continue to provide residents with a unique and valued sense of place into the future.

Figure 2.5 – A group of workers’ cottages on Young Street
Figure 2.6 – A bungalow on Corlette Street. The dwelling contributes in a positive manner to the streetscape

2.10 Contributory Buildings

Fieldwork was undertaken during March and April 2014 in order to establish the overall level of intactness of the HCA and to map the location of contributory buildings. For definitions of contributory buildings, refer to section 1.7.

The following images are intended to provide guidance on the three categories of building contribution in Cooks Hill HCA, starting with contributory buildings, neutral and ending with the category of non-contributory building. Finally a map of the area is provided which identifies, by colour, the category of each building within the heritage conservation area.
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<tr>
<td>Non Contributory</td>
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6 Non-contributory buildings are only deemed non-contributory in the context of the character of a HCA. The authors are not seeking to disparage such buildings and no offence should be taken.
2.11 Newcastle Voice Community Survey Results

As part of the Cooks Hill HCA review, a survey of local community members was conducted to gain an understanding of what residents and property owners value about the HCA. The survey was conducted in March and April 2014. A total of 197 survey responses were completed. The key findings are as follows:

- 96% were aware that Cooks Hill is a Heritage Conservation Area
- 93% agree that Cooks Hill should be a Heritage Conservation Area
- 29% had lodged a development application (DA) for a property in the CHHCA in the past 10 years
- the elements residents valued most about Cooks Hill were the streetscape and character (86%), the proximity to facilities and services (84%), and the heritage houses and building (82%).

The majority of respondents agreed that there are buildings in the area that both contribute to, and detract from, the character of the area. Over half the respondents agreed that buildings in the HCA should be allowed to be demolished where they are in poor structural condition (58%) or where the building has been altered or does not fit with the character of the area (50%). The majority of Cooks Hill residents (86%) agreed that new development, including alterations and additions, should be designed to fit the existing character of the area.
Opinion on whether HCA development guidelines should be merit based or prescriptive was divided, with 55% of respondents indicating a preference for the merit based approach and 45% preferring prescriptive standards. Cooks Hill residents were supportive of the idea of including sketches, models and concept plans for new building and alterations and additions in the development control plan (DCP) guidelines.

**NOTE:** The exhibition of the draft report included another community survey conducted by Newcastle Voice. This survey was open between 1 February 2016 and 14 March 2016 and the results are provided at **Appendix A.**

### 2.12 Boundaries

A review of the boundaries of HCA was undertaken. Overall the boundaries are in appropriate positions to ensure that the heritage significance of the area is retained and conserved, with two exceptions.

The Darby Street block between Tooke and Parry Streets, has been fragmented by recent development including three storey residential flat buildings and atypical development. Fieldwork also identified a large aged care complex, and large townhouse developments that are at odds with the valued character of Cooks Hill. As a recommendation of this review it is advised that the boundary of the Conservation Area at this section is adjusted to exclude these parcels from the Conservation Area. These parcels are 252, 256, 260, 266-268, 272, 274, 278, 282, and 286 Darby Street. See **Figure 2.8** below.

A small section of Anzac and Kitchener Parade was assessed as part of this review. As noted, Council commissioned a heritage assessment of this area in 2005. The finding recommended that a heritage conservation area was warranted to preserve heritage significance. This review has revisited this recommendation and found that the lower part of Anzac and Kitchener Parades retains several Inter-war period bungalows that are intact and produce a streetscape that is uniform and reflects its history of construction typologies following the First World War and should be preserved, by extending the eastern boundary of Cooks Hill HCA to include it. See **Figure 2.8** below.
Figure 2.8 - Proposed Boundary Changes to Cooks Hill HCA (Source: NCC GIS, 18 August 2015)
CHAPTER THREE -
HAMILTON SOUTH GARDEN SUBURB
HERITAGE CONSERVATION AREA
3.1 **Introduction**

This chapter examines the Hamilton South ‘Garden Suburb’ Heritage Conservation Area. Its’ cultural significance, as its name suggests, is embodied in the surviving physical elements of the ‘garden suburb’ movement of the early 20th century. The layout of roads such as Parkway, Gordon and Stewart Avenues, and public open space including Learmonth and National Parks, creates a distinctive character planned around large residential allotments containing single dwellings on allotments of between 520m² and 820m².

The suburb today is defined by elements that reflect the ideas of the garden suburb movement. Key visual elements include:

- California and Inter-War bungalows built as single storey detached dwellings on large lots
- Consistent front and side setbacks
- a soft ‘edge’ between the public domain and gardens in the private domain
- a strongly symmetrical pattern of streets supporting a grid layout
- Parkway, Gordon and Stewart Avenues as the obvious dominant feature streets, parts of which contain the street trees planted by the AA Company
- Newcastle High School
- Learmonth Park. The park contains a pair of masonry monuments that originally formed the southern gateway at the intersection of Gordon Ave and Glebe Road
- Parkway Avenue is important in demonstrating the “garden suburb” design principles.

Stewart Avenue (later to become the Pacific Highway), Gordon Avenue, and Parkway Avenue, provide the central axis to the plan. Parkway Avenue remains highly important in demonstrating the application of the Garden Suburb principles with its wide central median. It was designed as an important access corridor from Hamilton to the beach. The street plan remains relatively true to the original design, apart from road closures and the introduction of round-a-bouts on Parkway Ave, the signalisation of Gordon Avenue / Glebe Road in the 1960s and Stewart / Parkway Avenues in 2003.

Parkway Avenue is the most enduring aspect of Sulman’s plan for the area, with its wide central median that extends beyond the boundaries of the conservation area, from Denison Street at its western end, to Memorial Drive in the east. It is reflective of Sulman’s skill as a surveyor and planner that he provided a logical road connection from Hamilton to the beach and treated it as a wide grand avenue. It is strongly suggested that this avenue with its central median, is protected by its listing as a heritage item, to minimise any loss of intactness, or under regulated changes to street design, layout or form.

The street pattern gives a strong identity to the area, while houses, fences, building and street trees provide the fabric of the area that sets the character of the place.
3.2 Heritage Status - Hamilton South Garden Suburb

The current boundaries of the HCA were made as Amendment No. 110 to the Newcastle LEP 1987, dated 18 September 1998, Government Gazette No 145, page 8163. A locality specific Development Control Plan was adopted as the Hamilton South DCP No. 58 on 8 July 2003 following exhibition and workshops in 2001 and 2002. The current boundaries of the area remain as gazetted in 1998. See Figure 3.1.
3.3 History

The Garden Suburb Hamilton was developed by the Australian Agricultural Company (AA Company), between 1913 and 1935, at the behest of the chief surveyor Worters Pulver.\(^7\) The land was part of the AA Company’s 2000 acre coal bearing land acquired from the colonial government in 1829. As the mines wound down and the pits were closed at the turn of the 20th century, the AA Company found itself with a large area of redundant land, situated between the AA Company’s townships of Hamilton and Cooks Hill.

The land was mostly flat and swampy and occupied by sand dunes. Two creek lines converged to form Cottage Creek in what was boggy ground and the drainage sink for a broader flood plain.

The challenge was to transform this land into a respectable suburb that would appeal to the growing professional and managerial classes, and move them away from the dense and industrial portside districts.\(^8\) The Sydney firm Sulman & Hennessey, who had been involved in the design of the Daceyville estate, were engaged to lay the suburb out in a way that would appeal to the middle class. Modelled on the Garden Suburb ideals, the plan by Sulman and Hennessey made provision for an urban green space on Stewart Avenue, and extensive parklands throughout. National Park, Learmonth Park, Wilson Place and small pocket parks were set aside in the original design. Newcastle Council was responsible for the development of these parks.

Sulman and Hennessey’s scheme was to fill in the swamps inland of Bar Beach taking the sand from the dunes that swept across what is now Empire Park, and to relocate the Chinese market gardens in the swamp land (which is now National Park) to Hexham. Emeritus Professor of History University of Newcastle, John Ramsland, notes “Under Sulman’s plan, work began to transform Hamilton South into a garden suburb that would be totally unlike Newcastle’s modest mining towns with their small timber gun-barrel shaped miners’ cottages almost opening onto the street. A middle-class suburb was thus created by filling and draining the many swamps between the Cook’s Hill precinct of Newcastle and Hamilton and leveling the main sand dunes to create a large subdivision of AA land to be sold to the highest bidder.”\(^9\) To provide the required fill, around 1800mm of earth was taken from the coastal hillside above Bar Beach (now Bar Beach carpark) and transported to the Garden Suburb by a temporary small-gauge railway to fill in the hollows and swamps. A massive concrete stormwater channel was also built by the Hunter Water Board, straightening natural creeks and gullies to drain the area for development.

The AA Company first advertised the Sulman and Hennessey plan in the window of Palings Music Warehouse, Hunter Street, in mid-1913 and the plan was submitted to Hamilton Council. Inspired by the Griffin’s plan for the Civic area in Canberra, the final design featured three wide avenues, each envisaged as main roads with avenue trees planted on what would become the road reserves of Gordon, Stewart and Parkway Avenues. Parkway Avenue, the widest, was intended to provide direct vehicular access to Bar Beach from Hamilton and it bisected the suburb.

\(^7\) Meredith Walker & Associates, 1986, p. 10.
\(^8\) John Ramsland. 2014. p. 25.
\(^9\) Ibid. p. 24.
The area was well positioned being in close proximity to the beach and the Newcastle central business district. The first subdivision occurred on the ground at 2:30pm on 30 May 1914. Gas, electricity and sewerage were to be available. In the Creer and Berkeley auction poster, the garden suburb Hamilton was promoted as “A triumph of town planning…ample public recreation grounds. Gardens…Bathing beaches….imposing tree planted avenues.” Eighty-five lots were offered in the first auction, the boundaries of which were the Newcastle (Broadmeadow) racecourse to the west and the coastline in the east. Some of the posters carried a sketch of a picturesque California bungalow nestled between trees and shrubs, all intended for middle class families.10

Notwithstanding the promotional material, the subdivision of the streets occurred at a slow pace, because of external forces including the onset of war in 1914, and later the Great Depression of 1929. Sales halted completely in 1918.

It is notable that the AA Company commissioned the local architect Frank G Castelden to design a comfortable four-bedroom dwelling as a model home for the estate so that “intending home-makers would have a concrete example of how and what cost to build.”11 The intention of the AA Company was that the estate would be a model suburb with tree-lined streetscapes and attractive California bungalows with gardens front and back on spacious blocks along the parkway (later Parkway Avenue) and Gordon Avenue.

In the original plan of the estate dated 1912, a focal point was designed around a central village green and provided for a business hub on Stewart Avenue. A rotunda for brass bands was intended to be a centre piece, but it was never built. Today, a few shops have been built and a petrol station, but the village green idea was never realised. Land for parkland was also set aside, although it was left to Newcastle Council to fill National Park and develop it as a sporting ground.

John Sulman, sought to devise the road network with Parkway Avenue as the centerpiece and certainly, Parkway Avenue endures as a dominant attribute of the Garden Suburb. Norfolk pines were planted along its length and on either side houses of a superior class of kiln-fired bricks (many of which remain today), together with neat and well tended lawns and gardens. Most homes were well set back on Parkway Avenue to emphasise and display the large front gardens.

Ramsland has analysed the legacy and enduring aspects of the Hamilton Garden Suburb estate. Ramsland has identified many surviving elements of the original concept - for example the majority of the dwellings - which are examples of the styles that were to define the Garden Suburb - California bungalows, Art Deco, and Spanish Mission houses of the 1920s-1930s. Ramsland says that the dwelling stock has “maintained the elaborate traditional and exotic front gardens of hedges, flowering bushes, small trees and rose gardens”12. Most tellingly and of most relevance to this review, Ramsland has remarked that “While the title Garden Suburb has been dropped long ago, the structure has survived better than at Daceyville, Matraville and Castlecrag combined.”13

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10 Ibid. p. 23.
12 Ibid. p. 23.
13 Ibid. p. 23.
Of interest to this review is that the north and south sections of the Garden Suburb were intended to be purchased by two different demographic segments of the population. The Garden Suburb was designed to allow the section roughly north of Jenner Parade to be marketed to the more wealthy buyer (the managerial and professional class of an industrial city) who would build brick houses, while the south half (roughly south of Jenner Parade) was marketed to tradesmen and shop owners who were expected to build weatherboard houses. As a part of its marketing strategy the Company built two brick display houses in Gordon Avenue in the north end, and two weatherboard display houses at the south end, presumably to drive this socio-economic vision for the area. This attempt at social stratification was not overly successful as outside events would drive a more drawn-out development timeframe than first anticipated, and lead to a more mixed blend of brick and weatherboard houses throughout. However there are some streets where there are consistent rows of brick or weatherboard houses.

3.4 Physical Description

There are a number of physical elements in Hamilton South that date from the early 20th century that give the suburb a distinctive residential character. These elements represent more than 100 years of residential development:

- Original single storey detached houses constructed between 1918 and 1940, represented by detached Inter-War bungalows in various styles and treatments.
- Generous allotment sizes, ranging from 420 – 820m² with the predominant allotment size being 520 – 620m² (Meredith Walker, 1986, p.9).
- Generous street frontage setbacks (approximately 5.9m), which is landscaped with grass, plantings and low brick or timber fences.
- A distinct difference between the north of the conservation area (predominantly brick construction with more Federation style dwellings) and the south of the conservation area (predominantly clad construction and later houses of the 1920s and 30s).
- Large and mature street trees along road verges including Gordon Avenue, Stewart Avenue, Jenner Parade and Parkway Avenue.
- The width of the carriageways of the principle streets including Parkway, Gordon and Stewart Avenues.
- National Park, Learmonth Park, Wilson Place and small pocket parks.
- Low density residential development throughout.

3.5 Previous Heritage Studies

In 1986, Council commissioned Meredith Walker & Associates to assess the character and heritage significance of the area. This report found that the area was predominantly characterised by consistent streetscapes, including the massing and scale of individual dwellings. This report provided recommended guidelines for the control of development within the area, with reference to Council’s DCP No. 14 which at the time, did not provide specific controls for the purposes of development assessment in the Garden Suburb.
Council commissioned a second report in 1996 from the same firm with the aim of providing guidance to council on appropriate boundaries for the area. That report included the area south to the original boundary of the subdivision to Glebe Road. In 1997, Council adopted a resolution to make the area a heritage conservation area as an amendment to the local planning instrument. The current boundaries were made as amendment number 110 to the Newcastle LEP 1987, dated 18 September 1998, Gazette No 145, page 8163.

Other studies undertaken by Council include a review of the heritage significance of Parkway Avenue by Colin Brady & Associates in 2002, and a heritage assessment of both Parkway Avenue and National Park, by Ecotecture in 2005. Both of these reports recommend the heritage listing of Parkway Avenue and National Parks, either as heritage items or included in either Cooks Hill Heritage Conservation Area or Hamilton South Garden Suburb HCA.

3.6 Assessment of Cultural Significance

Hamilton South “Garden Suburb” Heritage Conservation Area represents a pattern of urban settlement that is representative of the gradual urban infill of the Newcastle coal field after 1900. As such, it has the capacity to demonstrate aspects of the history of Newcastle associated with state historical themes. In revising the heritage significance of the area, the NSW State Heritage Inventory criteria has been applied to assess cultural significance, expressed in detail below:

- **Criterion a - An item is important in the course, or pattern, of NSW’s cultural or natural history:**

  The Garden Suburb is historically significant for its associations with the Australian Agricultural Company, at a time when the economy of Newcastle was shifting from coal to steel making. The opening of the BHP Steelworks created a need for a higher standard of housing for professional staff, and the garden suburb is evidence of the need to house the growing middle class that emerged as a result of the establishment of BHP. The garden suburb is also representative of the type and style of building construction and development in the years between the two world wars, with numerous examples of the work of local building firms. The area is important in the course of Newcastle’s history as its design and development represents the activities, decision making and strategies of the AA Company at the turn of the 20th century. It is also important in the course of Newcastle’s history as one of the last areas to be opened up to residential development once the AA Company divested their land holding in inner Newcastle.

  The garden suburb at Hamilton South is an important surviving example of the garden suburb movement and is representative of an approach to urban development that utilised town planning concepts from the United Kingdom and other features of the movement including well planned streets, tree lined avenues, parks and gardens. It is an important representative example of the model garden suburbs developed by the recognised architect Sir John Sulman, who was responsible for laying out the street plan for the Daceyville Garden Suburb of 1912, Matraville, and other garden suburbs in Sydney. The large parks contained within the area are representative of the AA Company’s intention to market the area to a discerning buyer who would be attracted to parkland and open space.
• **Criterion b - An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW’s cultural or natural history:**

The HS Garden Suburb HCA has special associations with the A.A. Company, being part of their 2000 acre grant of land in inner Newcastle which remained undeveloped until after 1910. The land was converted from swamp and sand dunes, to level blocks of land suitable for residential occupation, and specifically designed to attract Newcastle’s emerging middle class. This occurred as a result of the strategies and decisions of the Australian Agricultural Company, and the creative influence of its contracted town planners and architects, Sir John Sulman, John Hennessey, and Frank Castelden. HS GS HCA has strong associations with the work of John Sulman and important in the course of Newcastle’s urban history as an expression of his ideas.

• **Criterion c - An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW:**

The Hamilton South Garden Suburb HCA is important in demonstrating aesthetic characteristics that define the garden suburb town planning movement. These features include:

1. House styles – Federation and Inter War bungalows in the popular styles of the time, Edwardian, California, Art Deco and Spanish Mission.
2. Suburb layout and its reflection of the aspirations of the AA Company and their ambition for a high standard of residential development attractive to Newcastle’s growing middle class.
3. Streetscapes and landscaping, especially on roads including Gordon Avenue, Stewart Avenue and Parkway Avenue, which strongly contribute to the character of the suburb with their wide carriageways and many mature street trees, particularly Parkway Avenue which is highly significant for its green open space.
4. The overall layout of the suburb which provides evidence of the technical achievement of the firm of Sulman and Hennessey in laying out the suburb to fit an existing town grid.
5. The areas of park and green space designed to be an integral element of the suburb’s design and appeal, including Learmonth Park, National Park and smaller pocket parks.
6. The location of the garden suburb in close proximity to the Newcastle City Centre, is a defining visual marker of the urban geography of Newcastle.

The Garden Suburb provides a consistent development pattern with respect to style, scale, built form and materials and is important in demonstrating the key elements of the garden suburb town planning ideals of single storey detached dwellings in a garden setting flanked by tree lined streets.

• **Criterion d - An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons:**

A survey of residents in 2014 revealed that the community value the character and physical elements of the Hamilton South Garden Suburb and they agree with its protection as a heritage conservation area. On the whole there is a high degree of esteem held by the resident
community and strong attachment to the character of the area, the streetscape, buildings and public open space. The area meets this criterion on cultural grounds at the local level.

- **Criterion e - An item has potential to yield information that will contribute to an understanding of NSW’s cultural or natural history:**

  Given the rate of survival of key elements of the garden suburb town planning movement, including its ability to demonstrate elements of the work of John Sulman as well as the behaviour and strategies of the AA Company in the early 20th century following the cessation of coal mining, the area has the potential to yield information that will contribute to understanding aspects of Newcastle’s cultural history, and more broadly to the state of NSW for the capacity to yield information about the garden suburb movement, John Sulman, and the Australian Agricultural Company.

- **Criterion f - An item possesses uncommon, rare or endangered aspects of NSW’s cultural or natural history:**

  The area does not demonstrate this criterion to any notable degree.

- **Criterion g - An item is important in demonstrating the principal characteristics of a class of NSW’s:**
  - cultural or natural places or
  - cultural or natural environments.

The Hamilton South Garden Suburb HCA contains many surviving elements of the early 20th century town planning ideals of the garden suburb movement, and demonstrates these characteristics in its key elements including garden suburb layout and town plan, single detached bungalows and houses on large lots, and street trees and open space.

### 3.7 Comparative Assessment

Fieldwork undertaken for this review has found that the area contains many surviving elements associated with the Garden Suburb town planning concept (bungalows, gardens, large lots (over 600m²), parklands and smaller pocket parks, Art Deco and Spanish Mission houses). Perhaps the most striking element is the largely unaltered road and lot layout. The finding is supported by Ramsland’s recent comparison of early 20th century model garden suburbs, where he identifies the Hamilton South Garden Suburb as the best surviving example of its class of item. He argues that Hamilton South retains a “dominant early 20th century look and feel about its entire landscape”\(^{14}\), compared against Daceyville, Matraville and Castlecrag.

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3.8 Threatening Processes

Notwithstanding Ramsland’s findings about the comparative significance of the Hamilton South Garden Suburb HCA, the fieldwork identified a large number of dwellings that have been altered. Of this group, a high proportion of dwellings have been compromised by the scale and form of additions that have occurred over the past 20 years. Such is the degree of change that numerous houses were deemed to be no longer contributory to the area. In most cases this was due to an addition at the first floor and/or accommodation for vehicles situated in a manner which made them appear large and out of scale with the host dwelling.

Negative impacts undermine the integrity of the heritage conservation area especially in cases where the design of large extensions is visually dominant and clutters the appearance of the original house. Although some first floor extensions are only slightly discernible (and hence have minimal effect on the scale of the host dwelling), the roofline of many houses has been altered to a significant degree. This is often the case where the extension is floor space added above the roof line necessitating the addition of multiple roofs. Some houses have five roof elements which has resulted in convoluted roof geometry. Although the degree of impact can be subjective, this review finds that these changes affect the consistency of the streetscape and threaten the area’s valued character.

The Heritage Technical Manual includes provisions that deserve attention. Two sub sections provide guidelines that influence the form of development - Alterations and Additions and Roof Form and Shape. These sections aim to minimise the impact where the roof space is to be converted to additional floor space. Relevant sketch is copied below.

![Sketch of second storey addition](image)

Although this is intended to discourage second storey additions by concealing additional floor space largely inside the roof cavity, the fieldwork identified many examples where the addition was out of scale and visually dominant. Recognising that the residents were supportive of Council’s efforts to manage the character of the area, it is recommended that clearer controls be formulated based on design principles that are specific and measurable. This may include numeric standards such as building envelopes, maximum number of roof elements and minimum setbacks.
This review has identified dominant first floor additions as the key threatening process to the character of the heritage conservation area and the cumulative impact over time is identified as a risk to the heritage significance of the area. Because of the high number of non-contributory dwellings where additions were carried out after the introduction of DCP controls in 2003, it is clear that there is a need to provide clearer standards on the bulk and scale of additional floor space. Stringent development controls are required to manage these threatening processes and to guide future changes to homes in the HCA.

3.9 Desired Future Character Statement

This review has gathered information about the elements of heritage value in Hamilton South, and the features that establish character and provide a sense of place that is recognisable and worth keeping. As a result of this work, a statement of desired future character has been prepared. It is proposed to include the statement in the DCP as a clear guide for development assessment and design planning.

The character of the Hamilton South 'Garden Suburb' Heritage conservation area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Hamilton South Garden Suburb will be preserved and maintained through the retention of contributory buildings, open space, the existing subdivision pattern and maintenance of the 'Garden Suburb' layout, street trees and elements of visual interest and heritage significance such as Parkway Avenue, Learmonth Park, small pocket parks, and the vegetated edges of Cottage Creek. Elements that are to be preserved include:

- The original dwellings of the Garden Suburb which were built up to 1935
- The single storey scale of housing stock that is an original defining feature of the Garden Suburb
- The consistent front and side setbacks including retaining the offsets to side boundaries and keeping front gardens as open space
- Existing subdivision pattern and street layout as evidence of Sulman's 'garden suburb' layout and town plan
- A strong symmetrical and hierarchical pattern of streets including Parkway, Gordon and Stewart Avenues
- The existing appearance, form and function of Parkway Avenue, including the road verges, street trees, bridge abutments at Cottage Creek, and the central median that splits the carriageway into two single lane roads
- Gardens, street trees and public open space including pocket parks at Wilson Place, Corona Street, and elsewhere
- The relationship of houses to their gardens and houses to each other.
3.10 Contributory Buildings

Fieldwork was undertaken during September and October 2014 to establish the overall level of intactness of the heritage conservation areas and to map the location of contributory buildings. For definitions of contributory buildings, refer to section 1.7.

Contributory buildings may be defined as those buildings that are part of the original building stock, or have historic or aesthetic significance, or make a positive contribution to the streetscape. Generally buildings in this category had not been heavily altered or where alterations were evident these were of a scale or style that retained the character of the building. Removal of contributory buildings is detrimental to the heritage conservation area because these elements establish the prevailing character and reinforce its sense of place. On the other hand, demolition of and alterations to non-contributory buildings is encouraged if the replacement design is more in character with the streetscape. The contribution of any particular building to streetscape, character or heritage significance will guide the approach to development and assist in determining the degree of change that will be permitted.

The following images are intended to provide guidance on the three categories of contribution, starting with contributory buildings, neutral and ending with the category of non-contributory building. Finally a map of the area is provided which identifies, by colour, the category of each building within the HCA.
<table>
<thead>
<tr>
<th>Contribution Level</th>
<th>Image 1</th>
<th>Image 2</th>
<th>Image 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributory</td>
<td><img src="image1.png" alt="Image 1" /></td>
<td><img src="image2.png" alt="Image 2" /></td>
<td><img src="image3.png" alt="Image 3" /></td>
</tr>
<tr>
<td>Neutral</td>
<td><img src="image1.png" alt="Image 1" /></td>
<td><img src="image2.png" alt="Image 2" /></td>
<td><img src="image3.png" alt="Image 3" /></td>
</tr>
<tr>
<td>Non Contributory</td>
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<td><img src="image1.jpg" alt="Image" /></td>
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<tr>
<td>Non Contributory</td>
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<tr>
<td><img src="image2.jpg" alt="Image" /></td>
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<tr>
<td>Non Contributory</td>
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<tr>
<td><img src="image3.jpg" alt="Image" /></td>
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</tr>
</tbody>
</table>

15 Non-contributory buildings are only deemed non-contributory in the context of the character of a HCA. The authors are not seeking to disparage such buildings and no offence should be taken.
3.11 Newcastle Voice Community Survey Results

Newcastle Voice conducted a survey of residents who reside in the Hamilton South Garden Suburb HCA. The outcomes of this survey provide an insight into what people value about the heritage conservation area (HCA), the level of awareness of the heritage area and attitudes to current and future heritage controls.

The on-line survey was conducted between 8 October - 24 October 2014 and was open to all residents across the HCA. Information sessions comprised of two drop-in sessions at Hamilton Library on the 14th and 15th October 2014. Information flyers were placed in all resident letter boxes in the heritage conservation area, inviting residents to attend the information sessions and to complete the survey online. A total of twenty-two people attended these sessions and were provided an opportunity to talk to Council staff about the HCA and the survey. The total number of respondents to the survey was 245 out of around 800 households (30%).

A summary of the responses is provided below:

- 97% are aware that they are a resident of the HCA
- 92% agree with the Hamilton South Garden Suburb being a HCA
• 61% of participants within the Hamilton South Garden Suburb HCA have not lodged a Development Application with Council to make changes to property in the Hamilton South Garden Suburb HCA in the last ten years
• 96% think there are buildings in the Hamilton South Garden Suburb that contribute positively to the character of the area
• 57% would find it helpful if the contributory buildings were identified on a map, 29% do not.
• 92% think new development (alterations/ additions or new buildings) should be designed to fit the existing character of the HCA
• 56% indicated that the guidelines for development in the Hamilton South Garden Suburb HCA should be merit based, with 44% supportive of a prescriptive standard.

**Top three elements most valued**
- 91% streetscape and character
- 88% heritage houses and buildings
- 75% proximity to facilities and services

**Top three aspects to be included in development guidelines**
- 77% examples of concept plans for alterations / additions
- 68% examples of architect designed sketches
- 62% guidance about fences

**Circumstances where buildings may be permitted to be demolished**
- 59% building has been altered and detracts from the streetscape and area's character
- 52% poor structural conditions
- 31% poor condition of building

The majority of residents agreed that there are buildings in the area that contribute positively or negatively detract from the character of the area. Over half of the residents that participated in the survey agreed that buildings should be allowed to be demolished where they are in poor structural condition (52%) or where the building has been altered or does not fit with the character of the area (59%). The majority of residents (92%) agree that new development, including alterations and additions, should be designed to fit the existing character of the area.

The survey reveals that of the residents who participated in the survey there is a high level of support for the continued protection of the area's character through the mechanism of the heritage conservation area listing, along with clear recognition of the necessity of the development control measures in the LEP and DCP. The survey also reveals that a high proportion of residents (77%) believe there is benefit in having concept plans included in development guidelines to help illustrate the types of development suitable for the HCA. Such guidelines were outside of the scope of this review but should be undertaken following its completion.
NOTE: The exhibition of the draft report included another community survey conducted by Newcastle Voice. This survey was open between 1 February 2016 and 14 March 2016 and the results are provided at Appendix A.

3.12 Boundaries

A review of the boundaries of the HCA was undertaken. In recognition of the heritage significance and existing character of Denison Street, Parkway Avenue and Ada Street, it is recommended that the north boundary of the HCA be adjusted to include properties on the north side of Denison Street (current the boundary is in the middle of Denison Street), and properties at 302-308 Parkway Avenue and 2-10 Ada Street Hamilton East, as shown in Figure 3.3.

The draft review report recommended that the boundary of the HCA at Glebe Road be amended by removing a section between 152 and 210 Glebe Road Merewether. Following analysis of the submissions made during the public exhibition it has been determined to not proceed with this recommendation.
Figure 3.3 - Proposed boundary changes to Hamilton South HCA (Source: NCC GIS 18 August 2015)
4.1 Introduction

The Hamilton Business Centre HCA is defined by the principle commercial street which may be described as a traditional shopping strip with commercial buildings of two and three storeys built to the boundary alignment on each side of the street. The side streets are mainly residential development of one and two storeys. Key visual elements include:

- A traditional commercial shopping strip comprising commercial buildings of two –three storeys built to the boundary alignment
- Active street frontages in commercial buildings at the ground level
- Parapets concealing roofs from the street
- Masonry buildings with face brick or rendered wall surfaces
- Parallel parking either side of the street
- Minimal street trees
- Sandstone kerb and guttering
- Various heritage items including the Wesley Uniting Church, Scotts Kirk, the former Masonic Hall, and several hotels
- Post 1990 infill development built after the 1989 earthquake.

Beaumont Street was heavily impacted by the Newcastle earthquake of 1989. As a consequence there are numerous examples of infill development and many buildings that date from the early 1990s. The character of Beaumont Street is reinforced by the activity at street level, rather than by a collection of intact heritage buildings. Many of the buildings that are original have been altered at both street and first floor level and there are very few that remain intact. Those that are considered to be of heritage significance are included as heritage items in Schedule 5 of the Newcastle LEP 2012.

The boundaries of the Heritage Conservation Area are shown in Figure 4.1.
4.2 Heritage Status

The area known as the Hamilton Business Centre Heritage Conservation Area was gazetted as a heritage conservation area as Amendment No. 52 to the Newcastle LEP 1987, dated 25 June 1992, Gazette No 83, page 4652. The current boundaries of the area remain as gazetted in 1992.

4.3 History

The Hamilton Business Centre HCA is situated on land that was owned by the Australian Agricultural Company (AA Company). The land was part of the AA Company’s 2000 acre coal bearing land acquired from the colonial government in 1829. Most of the area known now as the suburb of Hamilton was the Company’s coal field, opened up to mine the lucrative borehole seam The D Pit was located in Hamilton and a small township sprang up around it. It would be the genesis of the modern suburb of Hamilton.
The area in which Beaumont Street is situated was released by the Australian Agricultural Company for commercial and residential purposes between 1900-1910. Hence, many of the buildings along the Beaumont Street corridor were built after 1910. Most were built between 1910 and 1930. The residential area to the immediate east of Beaumont Street was released earlier, with Pit Town occurring in 1870 and sections including a section called ‘Woodville’ subdivided in 1885, other sections following 1886 and 1888. The housing stock is a reflection of these dates of urban release and is typically of the late Victorian and early Federation era.

### 4.4 Physical Description

There are a number of physical elements in Hamilton Business Centre HCA that date from the mid- to late 19th centuries and give the area a distinctly commercial character of a human scale of between one and three stories. These elements represent the commercial growth of the area after its establishment as Pit Town in the years following the opening of the Australian Agricultural Hamilton pits from 1848.

Today Beaumont Street is a north - south spine where the building stock is built to the street frontage. Side boundaries are generally based on zero lot lines with shared party walls, reflecting the commercial nature of the precinct. Many of the shops were planned around a ground floor commercial space, with residential accommodation at the first floor level accessed from a flight of stairs at the back of the shops. The majority of the building stock on Beaumont Street is derived from the period between 1890-1930, or is post-Earthquake infill.
The side streets off Beaumont Street are predominantly residential in character, and of a single storey scale, typified by detached dwellings. This establishes a sense of common uniform to many of these streets.

4.5 Assessment of Cultural Significance

Hamilton Business Centre HCA represents a pattern of urban settlement that is representative of the gradual urban infill of the Newcastle coal field during the mid-19th to early twentieth centuries. The NSW State Heritage Inventory criteria and inclusion and exclusion guidelines have been applied to assess cultural significance, expressed in detail below:

- **Criterion a - An item is important in the course, or pattern, of NSW’s cultural or natural history:**
  Hamilton Business Centre HCA is historically significant for its associations with the AA Company, during the mid-to late 19 century and its development is reflective of the coal mining that dominated inner Newcastle. The economic shift from coal mining to steel making around the turn of the century is also reflected in the way Beaumont Street changed over time. The area is important in the course of Newcastle’s history as a settlement that originated as a satellite village to a coal mine, to become a densely populated commercial and residential precinct.
  
  The extent to which the HCA represents this pattern of development is compromised by later changes and the removal of the earlier original building stock. Alterations and additions have reduced the integrity of the HCA as an area of early 20th century development.

- **Criterion b - An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW’s cultural or natural history:**
  Hamilton Business Centre HCA does not demonstrate this criterion to any notable degree.

- **Criterion c - An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW:**
  Hamilton Business Centre HCA does not demonstrate this criterion to any notable degree.

- **Criterion d - An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons:**
  Hamilton Business Centre HCA does not demonstrate this criterion to any notable degree.

- **Criterion e - An item has potential to yield information that will contribute to an understanding of NSW’s cultural or natural history:**
  The Hamilton Business Centre HCA may over time have potential to yield information about the process of re-building and reconstruction, in both a physical and economic sense following a major natural disaster.
• **Criterion f - An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history:**

The area does not demonstrate this criterion to any notable degree.

• **Criterion g - An item is important in demonstrating the principal characteristics of a class of NSW’s:**
  - cultural or natural places, or
  - cultural or natural environments.

The area does not demonstrate this criterion to any notable degree.

In conclusion, the Hamilton Business Centre HCA has marginal heritage significance for its association with the Australian Agricultural Company, and the transition of land used originally for coal mining into commercial and residential land uses.

### 4.6 Boundaries

Fieldwork was undertaken in November 2014 to establish the overall level of intactness of the heritage conservation area and to map the location of contributory buildings.

The map shows a significant number of non-contributory and neutral buildings. Although there was a relatively high number of individually listed heritage items and a generally consistent two storey scale within Beaumont Street, the high proportion of altered buildings raises questions about the validity of maintaining the existing status quo. Away from Beaumont Street, in the side streets, there was a higher level of intactness, particularly in Bennett, William and Murray Streets with a differing residential character.

It was therefore recommended in the draft HCA report that the Hamilton Beaumont Street Heritage Conservation Area be removed from the heritage schedule of the LEP. However as a result of the analysis of the submissions made during the public exhibition this final review report has concluded that the removal of the Hamilton Business Area Heritage Conservation Area should not proceed at this time. It is further recommended that the sandstone kerb and gutters not be heritage listed.
Figure 4.3 - Hamilton Business Centre Heritage Conservation Area – contributory building map (Source: NCC GIS 18 August 2015)
CHAPTER FIVE -
THE HILL HERITAGE CONSERVATION AREA
5.1 Introduction
This section documents The Hill Heritage Conservation Area, located in the inner area of the city of Newcastle, bounded to its north by the Newcastle City Centre, west by Cooks Hill and east by the Pacific Ocean. A map of the heritage conservation area is reproduced in Figure 5.1 of this chapter.  

Figure 5.1 - The Hill Heritage Conservation Area - current boundary

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16 This section should be read in conjunction with background studies to the original statutory listing of The Hill Heritage Conservation Area in the Newcastle LEP 1987, including the Urban Conservation Area Guidelines for Inner Newcastle, 1996, by Godden Mackay Heritage Consultants (Dewey Q711.558/NEW), and the Newcastle Inner Areas Conservation Planning Study, March 1984, by Suters Busted Lester Firth (Dewey RSQ711.5/SUT).
5.2 Heritage Status - The Hill

The area known as The Hill Heritage Conservation Area was gazetted as a heritage conservation area as Amendment No. 52 to the Newcastle LEP 1987, dated 3 July 1992, Gazette No 83, page 4668. The current boundaries of the area remain as gazetted in 1992.

5.3 History

Awabakal and Worimi peoples are acknowledged as the traditional owners of the land and waters of Newcastle. For thousands of years before the arrival of the British in Newcastle, Aboriginal people lived on and around the harbour and its hinterland. Newcastle was called Muloobinba while the Hunter River was called Coquon.

Although landscape of the Hill has changed dramatically since European arrival, Newcastle and The Hill continues to hold important cultural significance to local Aboriginal communities. There are meanings and associations in the landscape that reinforce the deep and ancient history of the area and continuity of Aboriginal connection. The high cliff at South Newcastle Beach extending into King Edward Park is called Yi-ran-na-li, and in dreaming story it is a fearful place. Yi-ran-na-li must be respected by all and no one should linger or speak in its vicinity because of the danger of falling rocks. Yi-ran-na-li is interpreted today by an artwork made by members of the local community.

Natural landscape features and known sacred sites near to the Hill Heritage Conservation Area include Whibay Gamba (Nobbys). It is said that a kangaroo jumped from Tahlbihn Point, at the site now known as Fort Scratchley, to the safety of Whibay Gamba. The kangaroo remains hidden in the island’s bowels occasionally thumping its tail and making the land tremble. The thumping is said to be a reference to the region’s earthquake activity.

Paintings depicting Aboriginal people were produced after the establishment of a permanent British settlement in 1804. A large collection of artworks are important testimony of the Aboriginal ownership of the area, and a reminder of the experience of first contact between the Awabakal and Worimi tribes and the British. As such, The Hill has profound historical significance as a place of first contact between the traditional owners of the land and waters of Newcastle and the newly arrived Europeans.

In 1804, a penal settlement was established by proclamation of Governor King. The area just south of the penal settlement, on the lower slopes of the Hill, was to become the site of the church and the location of Government House and domain. In the fashion typical of the settlers, the traditional Aboriginal place names were ignored and the new area was called Church Hill, in recognition of the church established in 1817 by Commandant Wallis.

By 1822 the penal settlement was moved to Port Macquarie and Newcastle and the Hunter was declared a free settlement. The remaining convicts stayed at Newcastle to build the breakwater and the barracks within the government domain, and infrastructure and road improvements in the town. The government appointed the surveyor Henry Dangar to devise a layout for the settlement, and in 1823, his plan for the town of Newcastle was accepted. The alignment of streets in The Hill still follows this plan.
Dangar’s Plan of the Town of Newcastle

The layout created by Dangar sufficed for many years, even though it was not officially aligned. It was not until 8 August 1853, that the streets in the inner part of Newcastle were officially aligned. This covered the area bounded on the south by Church Street, on the west by Brown Street (the boundary of the AA Company’s land), on the north by the harbour and on the east by Telford and Pacific Streets. Licensed Surveyor John Rogers had surveyed the plan. Subsequently, in 1854, the Colonial government spent £190/1/3/0 aligning Newcastle’s streets.

The line of Brown Street and The Terrace were altered to allow an adjustment of the boundary between the AA Company grant and the official town. A sketch plan by the Surveyor-General of April 1857 of the altered line showed the changes. By 1860, Newcastle was slowly emerging from the shackles of its penal past, growing in economic importance as a place for coal extraction and exportation. The Awabakal people were pushed out by the new system of land alienation and now lived on the outskirts. The city’s rapidly burgeoning middle class chose The Hill to build large fine houses. Many of these survive in The terrace and Cliff Street, Claremont House, Marlborough House, Jesmond House, Lee Terrace, Shalimah, Lance Villa and Woodlands among others. Working people also built houses and many modest examples survive as physical evidence of the age and historical layering that defines The Hill.

Parks and reserves in The Hill

King Edward Park was set aside in November 1856, an area of 35 acres for a Recreation Area and Reservoir. It was later dedicated on 2 July 1863. In 1897, the Upper or Horse-shoe Reserve was occupied by a bowling green and tennis court. During World War Two, King Edward Park became an important site for the defence of Newcastle and an army base was established. A series of tunnels were dug under the park and a searchlight and engine house was built at the base of the bowling club. Houses on The Terrace and High Streets were resumed by the government for occupation by the military. The shepherds Hill coast battery site of 1 acre 2 roods was set aside by 31 July 1890. The Obelisk is the site of the 1821 stone windmill, which was later rebuilt as an obelisk. Arcadia Park was originally part of the Recreation Reserve. By the late 1840s, Church Walk Park, located at the western end of Church Street, was the route of the AA Company’s railways from the D Pit at Hamilton.

Cathedral Park originally formed part of the burial ground of the church. A sketch map of land at Newcastle by Henry Dangar, dated as 9 October 1832, suggests that it extended to the north-east towards the corner of King and Newcomen Streets. The actual boundary has not been verified with the modern cadastre. By the 1890s, the burial ground was replaced by the opening of the Sandgate cemetery, and the burial ground began a process of neglect. In 1966, the Christ Church Cathedral Act was gazetted and the land was transferred to the ownership of Newcastle City Council. This was extended in 1990 to include the portion on the corner of Wolfe and King Streets, previously occupied by Simon’s Kemp’s cottage Mulimbah.

Fletcher Park was reserved as public open space as early as 1860. By October 1893 Fletcher and Shortland Parks were shown on survey maps of the area. The Ocean Beach Foreshores were dedicated as 40 acres on 7 November 1906, but there were later changes to the area.
5.4 Physical Description

The Hill occupies the steep slopes on the southern shore of Newcastle harbour, with the highest point being the Obelisk and Shepherds Hill in the grassy knoll atop King Edward Park. Two major spurs run west along Tyrrell Street and north down King Street. South of the obelisk, the major ridge line continues along The Terrace to the reservoir.

Christ Church Cathedral is situated on a secondary knoll at the heart of The Hill. The Cathedral is an iconic landmark dominating the skyline of The Hill. Secondary landmarks include the Lead Light Tower at the corner of Brown and Tyrrell Streets, the Obelisk above Ordnance Street and the tower of Jesmond House in Barker Street.

The topography and the views it allows from the public domain over the harbour and ocean are an important aspect of The Hill’s urban character. Panoramic views are available from the Obelisk and Cathedral Park. Scenic views along the coastal cliffs include those from the reservoir at Shepherds Hill, King Edward Park and the end of Ordnance Street. Views of townscape interest include the view up Bolton Street, terminating with the court House and channelled street views over the harbour along Perkins and Wolfe Streets. A majority of large residences have been located to take advantage of views.

Parks and reserves are an important element of the amenity and physical character of The Hill. In fact, the Hill has a long history of public land reservation.

In summary, the physical character of The Hill is defined by a range of historically, culturally and visually significant built, natural and landscape features. These features include:

- Diversity of built form demonstrated by the diversity of building types and architectural styles - apartments, terraces and detached houses reflecting varying periods of economic prosperity and building activity, the earliest of which date from the closure of the penal settlement in 1822 (Newcomen House, the remains of the parsonage, archaeological remains from the first Christ Church).
- Original building stock of between one and three storeys, through to the post-war era.
- Buildings purpose built to accommodate a range of civic, religious and educational functions reflecting the history of the city as the second oldest urban centre outside Sydney.
- Aboriginal places and sites of cultural significance including locations of known dreaming stories and places of meaning and attachment.
- Archaeological areas and relics, known and unknown.
- A distinct topography which provides views out to the coastline, port of Newcastle and harbour mouth.
- Large and mature trees in gardens and in the public domain.
- Parks and reserves including King Edward Park, Cathedral Park, Fletcher Park, and Arcadia Park, each with their own history, significance and place in the story of Newcastle.
5.5 Previous Heritage Studies

The heritage value of the inner suburbs of Newcastle has been recognised since the 1960s. On 30 October 1978, the National Trust of Australia (New South Wales) resolved to classify both Newcastle East and The Hill as an "Urban Conservation Area" (see Figure 5.2). The 1978 listing boundary determined by the National Trust became the same boundary that would later be gazetted into the Newcastle LEP as the statutory boundary of the Hill and Newcastle East Heritage Conservation Areas.

Figure 5.2 - Newcastle Urban Conservation Area 1978 listing boundary
Soon after the National Trust listing, the area was also included on the Register of the National Estate by the Australian Heritage Commission as the "Newcastle Conservation Area", in 1979.

In 1982, Council commissioned the firm Suters Busted + Lester Firth to assess the character and heritage significance of Newcastle East and The Hill areas. The purpose of the study was:

- To identify and conserve the environmental heritage of the inner city of Newcastle
- To provide rehabilitation and infill guidelines for this area
- To provide a draft development control plan for urban conservation in Newcastle East, including the identification of public works.

The major emphasis of the study was Newcastle East and The Hill area to enable policies and objectives for conservation management to be incorporated in detailed development controls for the area. The area was regarded by Council as a key aspect of the city's physical identity and heritage.

The draft study was called the Newcastle Inner Areas Conservation Planning Study and was placed on public exhibition in September 1985. The study contains invaluable urban planning and heritage documentation and is available for viewing in Newcastle Region Library. The Newcastle Inner Areas Conservation Planning Study remains an invaluable baseline document for managing the heritage values of the areas.

The areas identified were eventually listed as heritage conservation areas in the Newcastle Local Environmental Plan, Amendment No 52 in 1992. In 1997, Council adopted development control guidelines in the form of DCP 44 - covering The Hill, Newcastle East and Cooks Hill. The DCP introduced principles and objectives to facilitate the protection and management of the built environment within each precinct.

5.6 Assessment of Cultural Significance

The Hill Heritage Conservation Area represents a pattern of urban settlement that traces its origins back to the earliest phase of the European settlement of the city of Newcastle, and beyond that, to the long tradition of indigenous settlement, the physical remains of which are contained in a rich archaeological layer and in stories and paintings of Aboriginal people set within The Hill following the arrival of the British from 1797. As such, The Hill Heritage Conservation Area has the capacity to demonstrate aspects of the history of Newcastle, in terms of its long indigenous heritage, through to colonisation and urban change. The Hill HCA is broadly representative of the urbanisation of a natural landscape.

The cultural significance of The Hill is embodied in the surviving physical elements of the area. The street layout is the most enduring aspect of Dangar's plan of inner Newcastle as it provides an orderly network of streets that provide vistas to the harbour and a strong north-south orientation. The building stock is representative of the urban history of Newcastle, covering almost all decades from the 1820s to the present. The eclectic range of buildings, as well as sandstone walls and street drainage, and the street trees give The Hill a unique and eclectic character, typified by its dominance of older buildings. Key visual elements include:
• The diversity of the building stock which reflects a long history of urban settlement
• The random house styles and varying building setbacks
• An organic street layout which reflects the steep topography of the Hill
• Stone retaining walls in the public and private domain
• Views from public areas over the coastline and harbour as these are an important aspect of the urban character of The Hill
• Open space and reserves including King Edward Park and Ordnance Reserve, Cathedral Park, Arcadia Park and Fletcher Park
• Iconic buildings and structures of significance including the Newcastle Cathedral, Newcastle Club, Claremont House, Newcastle Courthouse, the Obelisk, the Lead Light Tower and Newcastle Reservoir, the original Newcastle East Public School on Bolton Street and the newer Newcastle East Public School on Tyrrell Street.

Applying the NSW Heritage Criteria

In revising the heritage significance of the area, the NSW Heritage criteria has been applied as expressed below:

• **Criterion a - An item is important in the course, or pattern, of NSW’s cultural or natural history:**

The Hill HCA is significant for its role in the course of the history of New South Wales, including being a place of documented first contact between Aboriginal people and the British. It is significant as the location of the first attempt at coal extraction in 1801. It is also important in the course of NSW's history as the site of the Colonial government's attempt to control and punish recidivist convicts, through the proclamation by Governor King of the penal settlement in 1804, which continued for an 18 year period until 1822. The penal period would create the hallmarks of the city layout and character that defines it today, including the site of the first church and burial ground (now Christ Church Cathedral and Park), the site of the parsonage (1818, corner of Church and Newcomen Street), and the gradual transition from an altered landscape to a modern city. It is also a place that is important in course of NSW's cultural history as the site of the establishment of the first private coal mining venture in Australia, the archaeological evidence of which survives in the site of the A Pit off Church Street.

The Hill HCA is important for its ongoing existence as a modern urban settlement which can demonstrate through the rich archaeological heritage the pre contact traditions and life ways of Aboriginal people, who through the ongoing connections of the Awabakal people maintain an attachment to area today. Following the arrival of the British, Awabakal associations are recorded in paintings and records of the penal period and the decades that followed.
• **Criterion b - An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW’s cultural or natural history:**

The Hill HCA has special associations with the convict history of Australia, being a place of secondary punishment for reoffending convicts between 1804-1822. The first administrators of the colony and some of the first European navigators are associated with the area, including Lieutenant Shortland, Governors King and Hunter, and numerous others of importance in the history of early colonial Australia, including Commandant Wallis and Commandant Morissette. The area is also associated with the Australian Agricultural Company, being the eastern most extent of their 2000 acre grant of land in inner Newcastle. The AA Company established the first private coal mine in Australia at the A Pit, just off Church Street, in 1828. The AA Company, through its modern system of coal extraction and its coal export monopoly, made an important contribution to the origins of the Australian economy.

• **Criterion c - An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW:**

The Hill HCA is important urban cultural landscape that demonstrates aesthetic characteristics that define the evolution of an early Australian city established during the penal period. It has evolved a rich urban fabric that represents 210 years of urban development. These aesthetic features include:

1. Buildings that represent architectural styles and construction technologies from all periods of Australia's development including buildings of the Georgian, Victorian, Edwardian, Federation, Inter War and post war periods of urban development.
2. Suburb layout and its reflection of the Dangar plan of 1823, as well as the boundary of the Australian Agricultural Company's 2000 acre grant of coal bearing land in inner Newcastle.
3. Streetscapes and vistas outwards and inwards which strongly contribute to the character of the suburb.
4. The areas of park and green space designed to be an integral element of the Hill including King Edward Park, Fletcher Park, Arcadia Par and Cathedral Park.
5. The location of the Hill adjacent to the Newcastle City Centre, is a defining visual marker of the urban geography of Newcastle.

• **Criterion d - An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons:**

A survey of residents in 2015 revealed that the residents value the character and physical elements of The Hill and they agree with its protection as a heritage conservation area. On the whole there is a high degree of esteem held by the resident community and strong attachment to the character of the area, the streetscape, buildings and public open space. The area meets this criterion on cultural grounds at the local level.
• **Criterion e - An item has potential to yield information that will contribute to an understanding of NSW’s cultural or natural history:**

Given the rate of survival of key elements of the early urban settlement of Newcastle, including its ability to demonstrate elements of the work of Henry Dangar as well as the behaviour and strategies of the system of land subdivision and crown grants following the cessation of the penal colony mining, the area has the potential to yield information that will contribute to understanding aspects of Newcastle's cultural history, and more broadly to the state of NSW for the capacity to yield information about the cessation of a penal settlement and its evolution to a modern city.

• **Criterion f - An item possesses uncommon, rare or endangered aspects of NSW’s cultural or natural history:**

The area does not demonstrate this criterion to any notable degree.

• **Criterion g - An item is important in demonstrating the principal characteristics of a class of NSW’s:**
  - cultural or natural places, or
  - cultural or natural environments.

The Hill contains many surviving elements of the early 19th and 20th centuries and the processes of urbanisation. It demonstrates these characteristics in its key elements including street layout and the evidence of the Dangar town plan, housing stock and historic iconic elements and green space.

5.7 **Comparative Assessment**

Fieldwork undertaken for this review has found that the area contains many surviving elements associated with the gradual development of the city of Newcastle following the arrival of the invading British in 1804. Perhaps the most striking element is the steep gradients and undulating topography which has focused urban development to the determined the fairly organic subdivision layout and large number of retaining walls and split streets. The finding is supported by citations made by the Australian Heritage Commission and the National trust in their findings in the early 1980s of the value and significance of the Hill as an historic precinct.

5.8 **Threatening Processes**

This review has identified the demolition of contributory buildings as one of the key threatening processes, which over time, could undermine the valued character of the heritage conservation area. Cumulatively, this impact, if unmitigated, would compromise the heritage significance of the area.

A secondary key threatening process is the anticipated impact that future building envelopes in close proximity to the Hill will have on the views and character of the Hill HCA. These envelopes are a set of controls adopted in the Newcastle Local Environmental Plan 2012, and other planning considerations would apply. However as potential building envelopes the specific controls deserve consideration.
The Newcastle LEP 2012 at Part 7 Additional local provisions - Newcastle City Centre - includes provisions for building heights, Floor Space Ratios and building envelopes for land in the vicinity of the Hill Heritage Conservation Area. The maximum height for three particular parcels is 58.9m. If future developments were built to the maximum extent of the controls, the resulting buildings would be significantly taller than any of the existing buildings in the immediate vicinity of the Hill HCA.

Properties with the allowable larger height controls are in direct proximity to the north boundary of The Hill Heritage Conservation Area. In effect, the City Centre to the immediate north of the HCA is within the visual curtilage of The Hill HCA so any changes to the scale and form of the City Centre could affect the character, amenity and visual quality of the Hill HCA. Vistas outwards from the Hill HCA could be interrupted or obscured by any future buildings and if no mitigation measures are introduced could undermine the human scale that defines both The Hill and adjacent City Centre.

A concept plan was approved by the Hunter and Central Coast Joint Regional Planning Panel in April 2016 for the former Hunter Street mall site which limits building height to below 40m AHD. The Joint Regional Planning Panel concluded that the approved concept plan would have no unacceptable impacts on the built or natural environments including the heritage character of the locality. The LEP should be amended to reflect the concept plan approved building heights.

5.9 Desired Future Character Statement

This review has gathered information about the elements of heritage value in The Hill, and the features that establish character and provide a sense of place that is recognisable and worth keeping. As a result of this work, a statement of desired future character has been prepared. It is proposed to include the statement in the DCP as a clear guide for development assessment and design planning.

The character of the The Hill Heritage conservation area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of The Hill will be preserved and maintained through the retention of contributory buildings, open space, the existing subdivision pattern, street trees and elements of visual interest and heritage significance such as the many iconic buildings located in The Hill, parks and open space, views and vistas, the unique steep topography and street layout, and the character of the streetscapes including street trees, buildings and the relationship of built elements.

Elements that are to be preserved include:

- The range of contributory and historic buildings, particularly intact or historically significant groupings, heritage items, iconic structures, and the appearance and layout of streets
- Sandstone retaining walls, street features such as sandstone kerbing and guttering, and other features of historical interest such as coal shutes, public stairs, lanes, parks, views and vistas
- The eclectic and organic nature of the urban pattern and varying ages of the building stock that demonstrates the gradual urbanisation during the 19th and 20th century of a once indigenous landscape
• The existing appearance of the Hill, views outwards to the coastline and harbour and views into the area from the City, foreshore and Stockton which reveal a tree-lined suburb with a steep topography
• Gardens, street trees and public open space
• Existing subdivision pattern and street layout.

5.10 Contributory Buildings

Fieldwork was undertaken in May 2015 to establish the overall level of intactness of the heritage conservation areas. The location of contributory buildings has been mapped. For definitions of contributory buildings, refer to section 1.7

Contributory buildings may be defined as those buildings that are part of the original building stock, or have historic or aesthetic significance, or make a positive contribution to the streetscape. Generally buildings in this category had not been heavily altered or where alterations were evident these were of a scale or style that retained the character of the building. Removal of contributory buildings is detrimental to the heritage conservation area because these elements establish the prevailing character and reinforce its sense of place. On the other hand, demolition of and alterations to non-contributory buildings is encouraged if the replacement design is more in character with the streetscape. The contribution of any particular building to streetscape, character or heritage significance will guide the approach to development and assist in determining the degree of change that will be permitted.

The following images are intended to provide guidance on the three categories of contribution, starting with contributory buildings, neutral and ending with the category of non-contributory building. Finally a map of the area is provided which identifies, by colour, the category of each building within the heritage conservation area.
| Contributory | ![Contributory Image] |
| Neutral | ![Neutral Image] |
| Neutral | ![Neutral Image] |
Non Contributory\textsuperscript{17}

\textsuperscript{17} Non-contributory buildings are only deemed non-contributory in the context of the character of a HCA. The authors are not seeking to disparage such buildings and no offence should be taken.
Figure 5.3 - The Hill - Contributory Buildings map (Source: NCC GIS 18 August 2015)
5.11 Newcastle Voice Community Survey Results

The Hill HCA is an inner-urban precinct of regional and state heritage significance and the heritage values of this area are held especially dear to local residents. In order to gain an understanding of specifically what it is that residents and the general community value about the HCA, a survey was conducted in March and April 2014 by Newcastle Voice.

In total, 88 survey responses were received, with 73 of these stating that they were local residents of The Hill HCA. Some key findings from these 73 resident respondents were:

- 73% were aware that The Hill is a Heritage Conservation Area;
- 97% agreed that The Hill should be a Heritage Conservation Area;
- 16% had lodged a development application (DA) for a property within the HCA in the past 10 years; and
- The top three elements that residents valued most about The Hill were: heritage houses and buildings (92%), streetscape and character (92%) and proximity to facilities and services (88%).

All respondents (both residents and non-residents) agreed that there are buildings in the HCA that contribute to the character of the area. Almost half of the resident respondents agreed that buildings in the HCA should be allowed to be demolished where the building has been altered or does not fit with the character of the area (47%). The majority of resident respondents (92%) agreed that new development, including alterations and additions, should be designed to fit the existing character of the area.

Opinion on whether the HCA development guidelines should be merit based or prescriptive standard was divided, with 60% of resident respondents indicating a preference for the merit based approach and 40% preferring prescriptive standards. Resident respondents were supportive of the idea of including examples of concept plans for alterations / additions (77%), examples of architect designed sketches (73%) and sketches, models and concept plans for new buildings (72%) in the development control plan chapter on HCAs.

The survey results will be considered in the re-formulation of the statement of significance and desired future character statement for The Hill HCA. This re-formulation will then be considered for incorporation in the DCP.

NOTE: The exhibition of the draft report included another community survey conducted by Newcastle Voice. This survey was open between 1 February 2016 and 14 March 2016 and the results are provided at Appendix A.
5.12 Boundaries

A review of the boundaries of The Hill HCA was undertaken. Generally the boundaries are appropriate to ensure that the heritage significance of the area is retained and conserved. However, the city block between King, Church, Bolton and Newcomen Streets is included in the Newcastle Urban Renewal Strategy and has controls, zone and guidelines consistent with the Renewal Strategy. This block is also within the boundary of The Hill and hence subject to its heritage controls. The zoning of this block is R4 High Density residential and the FSRs and Height of Building map applies to it. In terms of character this block is much more reflective of the commercial nature of development in the city centre. However, the City Centre HCA has been outside the scope of this review. It is, however, recommended that this block be further investigated for possible excision from The Hill HCA as part of a future review of the City Centre HCA.

Council has in the past considered expanding the Hill HCA boundary to take in other parts of the suburb considered to be of heritage significance. In 2005, Council commissioned Ecotecture to assess a section of the Hill for protection as a heritage conservation area\(^\text{18}\). The area covered was High Street, Anzac, Lemnos and Kitchener Parades (see Figure 5.4). This area was released by the Australian Agricultural Company for residential development at the end of the First World War. As a result of a previous report by Ecotecture, it was recommended that Council create a stand-alone Heritage Conservation Area on the basis of its heritage significance and character. However, this idea did not progress and no further action was taken.

As part of this review, the Ecotecture 2005 report was considered in order to determine whether a Heritage Conservation Area remained a valid option to conserve its heritage significance. It was found that in the ten years since the 2005 report, there were notable changes to the character of the potential area. However, it was also found that there are significant outstanding groups that should be conserved through their inclusion in both The Hill HCA (by extending the boundary to include all of High Street and parts of Anzac Parade) and as an extension to the Cooks Hill HCA (parts of Kitchener and Anzac Parades). Lemnos Parade, by contrast, was found to be of low intactness and has not been recommended for inclusion.

As a result of the review the following recommendations are made:

1. On the basis of the character, significance and streetscape qualities of High and Bingle Streets, as well as a small section of Anzac Parade, a boundary adjustment to The Hill HCA is proposed to extend it to include this area. Refer Figure 5.4.

2. On the basis of the character, significance and streetscape qualities of a small part of Kitchener and Anzac Parades, a boundary adjustment to the Cooks Hill HCA is proposed to extend it to include this area. Refer Figure 5.4.

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Figure 5.4 - Proposed boundary changes to The Hill Heritage Conservation Area (Source: NCC GIS 9 October 2015)
CHAPTER SIX -
NEWCASTLE EAST HERITAGE
CONSERVATION AREA
6.1 Introduction

This section documents The Newcastle East Heritage Conservation Area, located in the inner area of the city of Newcastle, which is bounded by Watt Street at its west, the Pacific Ocean at its east, Pacific Park to the south and to the north by the harbour. A map of the heritage conservation area is reproduced in Figure 6.1. 19

Figure 6.1 - Newcastle East Heritage Conservation Area - current boundary

6.2 Heritage Status - Newcastle East

The area known as Newcastle East Heritage Conservation Area was gazetted as a heritage conservation area as Amendment No. 52 to the Newcastle LEP 1987, dated 3 July 1992, Gazette No 83, page 4668. The current boundaries of the area remain as gazetted in 1992.

19 This section should be read in conjunction with background studies to the original statutory listing of Newcastle East Heritage Conservation Area in the Newcastle LEP 1987, including the Urban Conservation Area Guidelines for Inner Newcastle, 1996, by Godden Mackay Heritage Consultants (Dewey Q711.558/NEW), and the Newcastle Inner Areas Conservation Planning Study, March 1984, by Suters Busteed Lester Firth (Dewey RSQ711.5/SUT).
6.3 History

Awabakal and Worimi peoples are acknowledged as the traditional owners of the land and waters of Newcastle, and the original owners of the suburb now called Newcastle East. For thousands of years before the arrival of the British in Newcastle, Aboriginal people lived on and around the harbour and its hinterland. Newcastle was called Muloobinba while the Hunter River was called Coquon. Newcastle and Newcastle East continues to hold important cultural significance to local Aboriginal communities. There are meanings and associations in the landscape that reinforce the deep and ancient history of the area and continuity of Aboriginal connection.

Natural landscape features and known sacred sites near to Newcastle East Heritage Conservation Area include Whibay Gamba (Nobbys). It is said that a kangaroo jumped from Tahlbihn Point, at the site now known as Fort Scratchley, to the safety of Whibay Gamba. The kangaroo remains hidden in the island’s bowels occasionally thumping its tail and making the land tremble. The thumping is said to be a reference to the region’s earthquake activity.

Paintings depicting Aboriginal people were produced after the establishment of a permanent British settlement in 1804. The large collection of artworks are an important testimony of the Aboriginal ownership of the area, and a reminder of the experience of first contact between the Awabakal and Worimi tribes and the British. As such, Newcastle East has profound historical significance as a place of first contact between the traditional owners of the land and waters of Newcastle and the newly arrived Europeans.

Convictism was the main imperative in the earliest years of Newcastle East. Many of the important structures of that period, including the lumber yard, the convict stockade, the gaol and salt-works, were situated in what is now the Newcastle East HCA. Henry Dangar’s map of 1823, also shows a fort in this area. The massive breakwater linking Nobbys island to the mainland, is a post penal era improvement located in Newcastle East.

Following cessation of the penal settlement in 1822, many of the convicts were moved to Port Macquarie. Those that remained were employed in the building of the barracks at James Fletcher hospital, the breakwater, or employed by the AA Company in their coal mines. After 1822, the shipping industry began to develop and soon a high proportion of the population were employed in the maritime industry - pilots, lighthouse keepers, life-boat sailors, tug boat crews, wharf labourers, ship chandlers, and customs staff.

The need for improved coastal defences along Australia’s east coast was accepted by the 1890s and Fort Scratchley was built as part of a wider defence plan. It was completed by 1886, with modifications continuing up until the 1940s.
One of the early major problems with building in Newcastle East was caused by wind blown sand. Soon after the arrival of Europeans, vegetation was removed from the area now known as Pacific Park, and along the coastline, and this caused the inundation of the area by sand dunes. This issue would continue to limit the residential development of Newcastle East until the 1870s, when mitigation work was carried out on behalf of the government by the Scottish Australian Investment Company. To do this, coal mine chitter was used to stabilise the sand by limiting its’ movement. Subdivision and development stimulated by the growth of Newcastle in the boom period of the 1870s, then took place. By the 1880s, substantial Victorian villas began to emerge. Newcastle East, by this time, was described as the ‘aristocratic end of the city’.

6.4 Physical Description

Newcastle East comprises of an area of flat land at the north east end of the Newcastle peninsula. It contains iconic sites of cultural significance to the local Aboriginal community, including Nobbys Wirrabirga, the harbour landscape and ocean. Fort Scratchley Historic site, the Newcastle Customs House, Convict Lumber Yard, Coutts Sailors' Home, and Foreshore Park are significant heritage places that define Newcastle East.

The underlying geology tells important aspects of the Newcastle story. The coal measures outcrop at Newcastle East under Fort Scratchley. The proximity and views of the harbour and ocean are an important aspect of Newcastle East's urban character.

The current built character of Newcastle East HCA ranges from small-scale residential to intensive urban forms, from recreational to business uses. The residential buildings are mostly Victorian or Federation period. A majority of the building stock in the central section of the HCA contributes to the character of the HCA in some way. Collectively, the contributory building stock demonstrates a consistency of scale, style, or other features which together make up a consistent built form in the Newcastle East HCA. In summary, the physical character of Newcastle East can be described as a cultural landscape comprising historically significant built and natural heritage items. These features include:

- Two and three storey terrace houses, historically significant former bond stores, commercial buildings and worker's housing from the late 19th century early decades of the 20th century.
- Aboriginal places and sites of cultural significance including locations of known dreaming stories and places of meaning and cultural connection. The Convict Lumber Yard is the location of a documented Aboriginal archaeological site.
- Archaeological areas and relics, known and unknown.
- Views out to the coastline, port of Newcastle and harbour mouth.
- Foreshore Park, Nobbys, Fort Scratchley, Pacific Park and the Convict Lumber Yard, each with their own history, significance and place in the story of Newcastle.
6.5 Previous Heritage Studies

The heritage value of the inner suburbs of Newcastle has been recognised since the 1960s. On 30 October 1978, the National Trust of Australia (New South Wales) resolved to classify both The Hill and Newcastle East as an "Urban Conservation Area" (see Figure 6.2). The 1978 listing boundary determined by the National Trust became the same boundary that was later gazetted into the Newcastle LEP as the statutory boundary of the Hill and Newcastle East Heritage Conservation Areas.

Figure 6.2 - 1978 National Trust Listing Boundary of the Newcastle Urban Conservation Area
Soon after the National Trust listing, the area was also included on the Register of the National Estate by the Australian Heritage Commission as the "Newcastle Conservation Area", in 1979.

In 1982, Council commissioned the firm Suters Busteed + Lester Firth to assess the character and heritage significance of The Hill and Newcastle East areas. The purpose of the study was:

- To identify and conserve the environmental heritage of the inner city of Newcastle
- To provide rehabilitation and infill guidelines for this area
- To provide a draft development control plan for urban conservation in Newcastle East, including the identification of public works.

The major emphasis of the study was to enable policies and objectives for conservation management to be incorporated in detailed development controls for the area. The area was regarded by Council as a key aspect of the city's physical identity and heritage.

The draft study was called the Newcastle Inner Areas Conservation Planning Study and was placed on public exhibition in September 1985. The study contains invaluable urban planning and heritage documentation and is available for viewing in Newcastle Region Library. The Newcastle Inner Areas Conservation Planning Study remains an invaluable baseline document for managing the heritage values of the areas.

The areas identified were eventually listed as heritage conservation areas in the Newcastle Local Environmental Plan, Amendment No 52 in 1992. In 1997, Council adopted development control guidelines in the form of DCP 44 - covering Newcastle East, Newcastle East and Cooks Hill. The DCP introduced principles and objectives to facilitate the protection and management of the built environment within each precinct.

**6.6 Assessment of Cultural Significance**

The Newcastle East Heritage Conservation Area represents a pattern of urban settlement that traces its origins back to the earliest phase of the European settlement of the city of Newcastle, and beyond that, to the long tradition of indigenous settlement, the physical remains of which are contained in a rich archaeological layer and in stories and paintings of Aboriginal people following the arrival of the British from 1797. As such, Newcastle East Heritage Conservation Area has the capacity to demonstrate aspects of the history of Newcastle, in terms of its long indigenous heritage, through to colonisation and urban change.

The cultural significance of Newcastle East is embodied in its setting - a core of heritage items and significant building groups surrounded by water on three sides. The inner part of the HCA, bounded by Scott Street and Stevenson Place, is enclosed and the physical elements within it are iconic features of Newcastle East. The building stock is representative of the urban history of Newcastle, covering almost all decades from the 1820s to the present. The historic buildings provide a series of uniform streetscapes which visually reinforce the historical character of the area.
The archaeological potential of the Newcastle East HCA cannot be overstated. The Newcastle Archaeological Management Plan 1997 and the Review 2013 confirm that the archaeological resources of this area are abundant, both Aboriginal and historical. The Coal River Precinct, listed on the NSW state Heritage Register, is an area where there is documented and predicted archaeological remains of profound research potential to the nation as the place of first contact with the local Aboriginal population and the place of the establishment of the Australian coal industry.

The architectural values of the Newcastle East HCA are to be found in the high quality of buildings, in the landscape settings of many of them, in the style, scale and detail, and in the contribution to the streetscape. The overall impression of Newcastle East is a strongly established historic precinct.

Key visual elements include:

- The narrow range of building types including terrace houses, workers' housing, government buildings, and bond stores which reflects the long history of urban settlement and various industrial themes in the city's history
- A uniform street layout which reflects the flat topography of Newcastle East and laneways which reflects the historical mechanism of sanitisation
- Views from public areas over the coastline and harbour as these are an important aspect of the urban character of Newcastle East
- Open space and reserves including Foreshore Park, Convict Lumber Yard, Newcastle Beach foreshore, Nobbys breakwater and headland, and Pacific Park
- Iconic buildings and structures of significance including Nobby's lighthouse and headland, Customs House, Fort Scratchley, the Coutts Sailors Home, the Bond stores, Tyrrell House, and Boatmans' Row.

Applying the NSW Heritage Criteria

In revising the heritage significance of the area, the NSW Heritage criteria has been applied as expressed below:

- **Criterion a - An item is important in the course, or pattern, of NSW's cultural or natural history:**
  
  Newcastle East HCA is significant for its role in the course of the history of New South Wales, including being a place of documented first contact between Aboriginal people and the British. It is significant as the location of the first attempt at coal extraction in 1801. It is also important in the course of NSW's history as the site of the Colonial government's attempt to control and punish recidivist convicts, through the proclamation by Governor King of the penal settlement in 1804, which continued for an 18 year period until 1822. The penal period would create the hallmarks of the city layout and character that defines it today, including the site of the Convict Lumber Yard and Coal River precinct, Flagstaff Hill (Fort Scratchley) and the gradual transition from an indigenous landscape to a residential precinct. It is also a place that is important in
course of NSW's cultural history as the site of the establishment of the first successful coal mining in Australia at Fort Scratchley.

Newcastle East HCA is important for its ongoing existence as an urban settlement which can demonstrate through the rich archaeological heritage the pre contact traditions and life ways of Aboriginal people, who through the ongoing connections of the Awabakal people maintain an attachment to area today. Following the arrival of the British, Awabakal associations are recorded in paintings and records of the penal period and the decades that followed.

- **Criterion b - An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW’s cultural or natural history:**

Newcastle East HCA has special associations with the convict history of Australia, being a place of secondary punishment for reoffending convicts between 1804-1822. The first administrators of the colony and some of the first European navigators are associated with the area, including Lieutenant Shortland, Governors King and Hunter, and numerous others of importance in the history of early colonial Australia, including Commandant Wallis and Commandant Morisset. The area is also associated with the discovery of coal and its extraction and export from Newcastle was the first in the country. The Coal River precinct is significant for its ability to demonstrate the history of coal mining, its impact on the Australian economy and how coal has shaped the Australian economy.

- **Criterion c - An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW:**

Newcastle East HCA is important urban cultural landscape in that is demonstrates aesthetic characteristics that define the evolution of an early Australian city established during the earliest phases of Australia's development into a modern nation, and that has evolved a rich urban fabric that represents 200 years of urban development. These aesthetic features include:

1. Buildings that represent architectural styles and construction technologies predominantly from the Victorian, Federation, and Inter War periods of urban development.
2. A Strongly homogenous street and lot layout, developed after the sand reclamation efforts of the 1870s and which can be said to be a reflection of the economic boom of the 1880s.
3. Streetscapes and vistas outwards and inwards which strongly contribute to the character of the suburb
4. An enclosed central precinct with a strongly historic character between King Streets, Stevenson Place, Parnell Place and Telford Streets.
5. The areas of parkland that are an integral element of Newcastle East including Foreshore Park, Pacific Park, the beaches and coastal facilities.
6. The location of Newcastle East at the end of the Newcastle peninsula, is a defining visual marker of the urban geography of Newcastle.
• **Criterion d - An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons;**

A survey of residents in 2015 revealed that the community significantly value the character and physical elements of Newcastle East and identify with its' protection as a heritage conservation area. On the whole there is a high degree of esteem held by the resident community and strong attachment to the character of the area, the streetscape, buildings and public open space. The area meets this criterion on cultural grounds at the local level.

• **Criterion e - An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history;**

Given the rate of survival of key elements of the early urban settlement of Newcastle, including its ability to demonstrate elements of the early development of Newcastle as well as the system of land subdivision and crown grants following the cessation of the penal colony mining, the area has the potential to yield information that will contribute to understanding aspects of Newcastle’s cultural history, and more broadly to the State of NSW for the capacity to yield information about the cessation of a penal settlement and its evolution to a modern city.

• **Criterion f - An item possesses uncommon, rare or endangered aspects of NSW’s cultural or natural history:**

The area does not demonstrate this criterion to any notable degree.

• **Criterion g - An item is important in demonstrating the principal characteristics of a class of NSW’s:**
  - **cultural or natural places or**
  - **cultural or natural environments.**

Newcastle East contains many surviving elements of the early 19th and 20th centuries and the processes of urbanisation. It demonstrates these characteristics in its key elements including building stock and the relationship of buildings to the street and each other, street layout including laneways, along with heritage items and green space.

### 6.7 Comparative Assessment

Fieldwork undertaken for this review has found that apart from modern developments on the edges of the HCA, the area in its central core is very intact and contains many historic elements that can be placed in the late 19th century and early 20th century. The high concentration of state and nationally significant heritage items in this HCA (Fort Scratchley, Nobbys Lighthouse, Newcastle Customs House, Convict Lumber Yard, Ocean Baths and Coutts Sailors Home), make this HCA very unique. The finding is supported by citations made by the Australian Heritage Commission and the National trust in their findings in the early 1980s of the value and significance of Newcastle East as an historic precinct.
6.8 Threatening Processes

There are some issues that continue to undermine the integrity and intactness of the Newcastle East HCA. These include:

- Unsympathetic development, in particular, inappropriately scaled and designed infill development that replaces original building stock
- The R3 zoning objectives should be considered against heritage conservation objectives, and may need to be investigated in a future study
- The 'wire scape' created by power poles and power lines continues to detract from the amenity and character of Newcastle East
- Increased traffic movements through the Newcastle East HCA reduces the amenity of the HCA.

6.9 Desired Future Character Statement

This review has gathered information about the elements of heritage value in Newcastle East, and the features that establish character and provide a sense of place that is recognisable and worth keeping. As a result of this work, a statement of desired future character has been prepared. It is proposed to include the statement in the DCP as a clear guide for development assessment and design planning.

The character of the Newcastle East Heritage conservation area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Newcastle East will be preserved and maintained through the retention of contributory buildings, open space, street trees and elements of visual interest and heritage significance such as the many iconic buildings located in Newcastle East, parks and open space, views and vistas, the unique steep topography and street layout, and the character of the streetscapes including street trees, buildings and the relationship of built elements. Elements that are to be preserved include:

- The range of contributory and historic buildings, particularly intact or historically significant groupings, heritage items, iconic structures, and the appearance and layout of streets
- Existing subdivision pattern and street layout, including preserving the integrity of laneways.
- Street furniture such as sandstone kerbing and guttering, and other features of historical interest such as heritage items, public stairs, lanes, parks, views and vistas.
- The regular and homogenous urban form which reflects a regular pattern of subdivision and development, and building stock from between the 1870s and 1930, demonstrating the gradual urbanisation of a once indigenous landscape.
- The existing appearance of Newcastle East, views outwards to the coastline and harbour, and views into the area from Foreshore Park and the Newcastle coastline and Ocean Baths.
- Icon heritage items including the Coal River Precinct, the Nobby’s headland and breakwater, Fort Scratchley Historic Site, Convict Lumber Yard and Customs House precinct, the Newcastle Ocean baths, Joy Cummings Centre and other significant groups such as the Lahey Bond Store and Stevenson Place terraces.
- Parks and reserves, including Newcastle beach, Nobby’s Beach, and Foreshore Park.
6.10 Contributory Buildings

Fieldwork was undertaken in May 2015 to establish the overall level of intactness of this area. For definitions of contributory buildings, refer to section 1.7.

Contributory buildings may be defined as those buildings that are part of the original building stock, or have historic or aesthetic significance, or make a positive contribution to the streetscape. Generally, buildings in this category had not been heavily altered or where alterations were evident these were of a scale or style that retained the character of the building. Removal of contributory buildings is detrimental to the heritage conservation area because these elements establish the prevailing character and reinforce its sense of place. On the other hand, demolition of and alterations to non-contributory buildings is encouraged if the replacement design is more in character with the streetscape. The contribution of any particular building to streetscape, character or heritage significance will guide the approach to development and assist in determining the degree of change that will be permitted.

The following images are intended to provide guidance on the three categories of contribution, starting with contributory buildings, neutral and ending with the category of non-contributory building. Finally a map of the area is provided which identifies, by colour, the category of each building within the heritage conservation area (see Figure 6.3).
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Non-contributory buildings are only deemed non-contributory in the context of the character of a HCA. The authors are not commenting on the architectural or design merits of such buildings and no offence should be taken.

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20 Non-contributory buildings are only deemed non-contributory in the context of the character of a HCA. The authors are not commenting on the architectural or design merits of such buildings and no offence should be taken.
6.11 Newcastle Voice Community Survey Results

The Newcastle East HCA is an inner-urban precinct of regional and state heritage significance. Its unique features, its accessibility and its prominent location mean that the area is held dear to both local and regional residents as well as visitors. In order to gain an understanding of specifically what it is that residents and the general community value about the HCA, a survey was conducted between the 9 March and 17 April 2015 by Newcastle Voice. The purpose of this data is to assist in Council’s review process of all of its HCAs. In total, 102 survey responses were received, with 71 respondents stating that they resided within the Newcastle East HCA. Some key findings from these 71 resident respondents were:

- 97% were aware that Newcastle East is a Heritage Conservation Area
- 99% agreed that Newcastle East should be a Heritage Conservation Area
- 25% had lodged a development application (DA) for a property within the HCA in the past 10 years

Figure 6.3 - Contributory Buildings - Newcastle East (Source: NCC GIS 18 August 2015)
The top three elements that residents valued most about the Newcastle East HCA were: heritage houses and buildings (90%), proximity to facilities and services (89%) and streetscape and character (89%).

99% of resident respondents agreed that there are buildings in the HCA that contribute to the character of the area. Almost half of the resident respondents agreed that buildings in the HCA should be allowed to be demolished where the building has been altered or does not fit with the character of the area (46%). The majority of resident respondents (85%) agreed that new development, including alterations and additions, should be designed to fit the existing character of the area.

Opinion on whether the HCA development guidelines should be merit based or prescriptive standard showed that 63% of resident respondents indicated a preference for the merit based approach and 37% preferred prescriptive standards. Resident respondents were supportive of the idea of including examples of architect designed sketches (84%) examples of concept plans for alterations / additions (83%), and guidance about improving the environmental performance of buildings (eg. solar power, rainwater tanks) (64%) in the development control plan chapter on HCAs.

NOTE: The exhibition of the draft report included another community survey conducted by Newcastle Voice. This survey was open between 1 February 2016 and 14 March 2016 and the results are provided at Appendix A.

6.12 Boundaries

A review of the boundaries of Newcastle East HCA was undertaken. Overall the boundaries are in appropriate positions to ensure that the heritage significance of the area is retained and conserved. The boundary also coincides with the Coal River State Heritage precinct.

The Newcastle East HCA boundary was assessed as appropriately positioned to ensure the conservation of the most significant parts of the Newcastle East area.
CHAPTER SEVEN -
PROPOSED HERITAGE CONSERVATION AREAS
7.1 Introduction
During the course of the review it became apparent that two small areas in close proximity to the Hamilton Business Centre Heritage Conservation Area and the Hamilton South Heritage Conservation Areas possessed a distinctive character and had potential heritage significance. Fieldwork was undertaken to examine the extent of contributory buildings and research into the history and heritage significance of these places was undertaken, in accordance with the guidelines for assessing heritage significance. The areas are discussed separately below.

7.2 Hamilton Residential Precinct Heritage Conservation Area
A relatively compact pocket of residential development located between Donald Street, Murray Street, Devon Street, Gordon Avenue and Tudor Street Hamilton was examined (See Figure 7.2). It was determined that as a representative example of residential development, this area, to the immediate east of the Hamilton Beaumont Street HCA is a highly intact residential area and strongly representative of the late 19\textsuperscript{th} and early 20\textsuperscript{th} century. An assessment of heritage significance was undertaken following the standard Heritage Assessment Guidelines and the NSW state heritage criteria. As a result of the assessment, it is recommended that the area be protected through the mechanism of a statutory heritage conservation area, and referred to as the Hamilton Residential Precinct Heritage Conservation Area, in a future LEP amendment.

In addition to the proposed heritage conservation area, this review identified three potential heritage items - 18, 32 and 34 Gordon Avenue. These items were developed after the land releases in 1885 and 1886, and are excellent representative examples of Edwardian homes with high levels of intactness. These properties are assessed as having local heritage significance and should be considered for inclusion in Part 1, Schedule 5 of the NLEP 2012, as local heritage items.
7.3 History

Figure 7.1 - Subdivision history (Source: NCC GIS)

7.4 Physical Description

The Hamilton Residential precinct HCA is a low scale, residential area typified by small lot housing of generally one and two storeys. The age of most of the building stock is late Victorian, Federation or Inter-war. In this sense, the character of the area and its streetscapes is representative of the late Victorian, Federation and pre-war periods of Australian urban development. These features include:

1. The style of housing – late Victorian terraces and cottages, Federation cottages and bungalows in the popular styles of the time, Italianate, Queen Anne, Edwardian, and California and Spanish mission influences.

2. The large number of detached terrace houses, which is unusual for terrace housing, indicating that, although the terrace house was still a favoured building form, purchasers' were moving away from party walls in building construction, which was associated with workers' housing.

3. The predominant age of houses indicates a boom around 1897, when Hamilton railway station was completed. Coupled with this is the observation that streetscapes are generally comprised of small lot housing, with a traditional street grid nestled adjacent to Hamilton railway station,
suggesting the emergence of a commuter culture within Newcastle. The area was also well serviced by the abundant network of trams in the city.

4. The small lot layout reflects the residential market with the suburb being popular with miners and nearby waterside industries.

5. The general absence of space for vehicle accommodation is important evidence that the suburb was developed in an age prior to the advent and take up of the motor car.

Examples of the range of housing styles found in this precinct is provided in the following images.
7.5 Previous Heritage Studies

The heritage value of Hamilton residential precinct was recognised in the Newcastle City Wide Heritage Study of 1997. The heritage study recognized it as an area of historic character, based around a traditional village centre.

7.6 Assessment of Cultural Significance

The Hamilton residential precinct represents a pattern of urban settlement that is representative of the gradual urban infill of the Newcastle coal field as mining moved out to the Hunter valley from 1880s until the turn of the 20th century. The urban development in the suburb reflects the gradual release of land by the AA Company, with some houses built as early as 1870. Most of the suburb was released in 1885-1886, and 1900-1920. As such this area has the capacity to demonstrate aspects of the history of Newcastle associated with state historical themes. Cultural significance has been assessed using the NSW State Heritage Inventory criteria and inclusion and exclusion guidelines, as follows:

- **Criterion a - An item is important in the course, or pattern, of NSW's cultural or natural history:**

  The residential precinct referred to as the Hamilton Residential Precinct Heritage Conservation Area is important in the course of Newcastle's cultural history, as it demonstrates key aspects of the urban development of land formerly owned by the Australian Agricultural Company, from the
1870s until the 1900s. The Australian Agricultural Company, who donated the land in which the township would develop, were instrumental in the growth of the area, operating the coal mines and establishing a local settlement around the pits of the borehole seam. The company donated a large parcel of land on which to base the commercial part of Hamilton, as well as Gregson Park and the surrounding areas. As the coal reserves were exhausted the Company developed their redundant coal land for residential uses. More than any other suburb of Newcastle, Hamilton exemplifies the changes that were happening to the economy and social character of Newcastle at the end of the 19th century. Hamilton exemplifies the population growth that occurred as a result of coal mining, and the boom in the local economy. Between 1880 and 1890, the population increased from 2000 to over 5000. But by the late 1890s the main mine, the Borehole pit, was in decline resulting in its closure in 1901, and the position of the town as a mining village ended.

Hamilton’s development between 1880 and 1900 reflects a period of intensive infrastructure investment by the state government, comprising the opening of the railway and train station in 1887. This attracted people to the suburb from the city centre and the style and age of much of the housing stocks reflects this period of growth and development.

- **Criterion b - An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW’s cultural or natural history:**

  The Hamilton Residential precinct HCA has special associations with the Australian Agricultural Company, being part of their 2000 acre grant of land in inner Newcastle. The township developed around the lucrative borehole pit, and was named "Pit Town", with operations at the No 1 pit, No 2 pit, the Hamilton pit and the lucrative D pit on Cameron Hill, all of which were opened up in the late 1840s and 1850s. The enduring legacy of the AA Company is still reflected in the contemporary names of streets, including Lindsay, Denison, Cleary, Everton and Skelton Streets. The smaller lot layout of the present day residential area of Hamilton can be attributed to the manner in which the AA Company released land for sale, the main purchasers being miners and company employees, and also reflects an era of urban development before the widespread use of the motor car, with little provision made for car parking.

- **Criterion c - An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW:**

  The Hamilton Residential precinct HCA is important in demonstrating aesthetic characteristics that define the late Victorian and Federation periods in Australian urban development. These features include:

  1. The style of housing – late Victorian terraces and cottages, Federation cottages and bungalows in the popular styles of the time, Italianate, Queen Anne, Edwardian, California and Spanish mission influences.
  2. The large number of detached terrace houses, which is an irregular modification to the usual ‘attached’ form of terrace housing. This pattern provides evidence of a move away from the construction of terrace houses, to detached terrace housing. This indicates that although
the terrace house was still a favoured building form, party walls in building construction were not the favoured form of construction in this area.

3. The predominant age of houses indicates a boom around 1897, when Hamilton railway station was completed. Related to this is that streetscapes are generally comprised of small lot housing, with a traditional street grid nestled adjacent to Hamilton railway station, suggesting the emergence of a commuter culture within Newcastle. The area was also well serviced by the abundant network of trams in the city.

4. The small lot layout also reflects the demography of the real estate market with the suburb being popular with miners and waterside workers.

5. The general absence of space for vehicle accommodation is important evidence that the suburb was developed in an age prior to the widespread use of the motor vehicle.

- **Criterion d** - *An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons:*

  The area does not demonstrate this criterion to any notable degree.

- **Criterion e** - *An item has potential to yield information that will contribute to an understanding of NSW’s cultural or natural history:*

  The area does not demonstrate this criterion to any notable degree.

- **Criterion f** - *An item possesses uncommon, rare or endangered aspects of NSW’s cultural or natural history:*

  The area does not demonstrate this criterion to any notable degree.

- **Criterion g** - *An item is important in demonstrating the principal characteristics of a class of NSW’s:*
  - cultural or natural places, or
  - cultural or natural environments.

  The area does not demonstrate this criterion to any notable degree.

### 7.7 Comparative Assessment

Fieldwork undertaken for this review has found that there is very little contemporary development in this precinct, and it is considered highly intact on a comparative level. In relative terms, this area is more intact than the nearby Hamilton Business Centre HCA, and is locally rare for its number of intact two-storey free standing terrace houses and a range of distinctive houses of the late Victorian and Edwardian periods.
7.8 Desired Future Character Statement

This review has gathered information about the elements of heritage value in this precinct, and the features that establish character and provide a sense of place that is recognisable and worth keeping. As a result of this work, a statement of desired future character has been prepared. If the area is subject to the regulation of a heritage conservation area, the following statement of desired future character would apply:

*The character of the proposed Hamilton residential Heritage conservation area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Hamilton residential precinct will be preserved and maintained through the retention of contributory buildings, street trees and elements of visual interest and heritage significance. Elements that are to be preserved include:*

- The range of contributory and historic buildings, particularly intact or historically significant groupings, heritage items, iconic structures, and the appearance and layout of streets.
- Street furniture such as sandstone kerbing and guttering, and other features of historical interest.
- The urban form which reflects a regular pattern of subdivision and development that dates from the 1890s to the 1930s, and building stock from this period.
- Prevailing absence of garages and on-site car parking accommodation
- Sandstone kerb and gutters and traditional road layout
- Items of heritage significance individually listed as heritage items in Schedule 5 of the Newcastle LEP.

7.9 Contributory Buildings

Fieldwork was undertaken in early 2015 to establish the overall level of intactness of this area. The location of contributory buildings has been mapped, see Figure 7.2.

Contributory buildings may be defined as those buildings that are part of the original building stock, or have historic or aesthetic significance, or make a positive contribution to the streetscape. Generally buildings in this category had not been heavily altered or where alterations were evident these were of a scale or style that retained the character of the building. Removal of contributory buildings is detrimental to the heritage conservation area because these elements establish the prevailing character and reinforce its sense of place. On the other hand, demolition of and alterations to non-contributory buildings is encouraged if the replacement design is more in character with the streetscape. The contribution of any particular building to streetscape, character or heritage significance will guide the approach to development and assist in determining the degree of change that will be permitted.
The following images are intended to provide guidance on the three categories of contribution, starting with contributory buildings, neutral and ending with the category of non-contributory building. Finally a map of the area is provided which identifies, by colour, the category of each building within the heritage conservation area.
Non Contributory

Non Contributory

Non Contributory

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21 Non-contributory buildings are only deemed non-contributory in the context of the character of a HCA. The authors are not seeking to disparage such buildings and no offence should be taken.
7.10 Proposed The Junction Federation Cottages Heritage Conservation Area

A section of Glebe Road in The Junction business area was examined. The area contains a highly intact group of Federation period dwellings, at street addresses 55 and 75 Glebe Road. See Figure 7.4.

The heritage investigation has now been undertaken by council staff and it is recommended that a Heritage Conservation Area be proposed in recognition of the heritage significance of this group of Federation era cottages. It is proposed that this area is called the “Glebe Road Federation cottages Heritage Conservation Area”. It is suggested that locality specific development controls are devised to retain the single storey scale of the group, including prescribing stringent envelope and heights controls imposed by the LEP. An amendment to the heritage schedule should be undertaken as this will create the necessary statutory controls to preserve the group.

The zoning on the north side of Glebe Road is B2 Local Centre, recognizing the commercial and shopping function. The south side of Glebe Road is zoned R3 Medium Density. It is acknowledged that the difference in zoning recognises a distinct change in the character from one side of Glebe Road to the other, from commercial to residential. The road is the boundary.

7.11 History

The cottages were constructed in rapid succession following the release of the land for residential development by the Australian Agricultural Company, in 1908. As a result, the cottages share similar characteristics and represent Federation style housing. The cottages are in fact at the southern-most edge of the AA Company's estate, so their release was coincident with the releases of other parts of the AA Company's land holding, including sections of Gordon Avenue north in Hamilton. Glebe Road itself is an important marker of the physical boundary of the AA Company's land holding, and the large Merewether Estate to the south.
7.12 Physical Description

The character of the south side of Glebe Road is defined by single storey detached weatherboard dwellings set close to Glebe Road, and set off side boundaries. It is noted that none have attached or built in garage structures with their associated garage doors facing the street. Access for vehicles is provided at the side of the dwelling and provision for parking occurs at the side or at the rear. The lack of obvious garaging is considered a distinctive feature of the group, and is evidence of the age of the dwellings. The uniformity of the group in terms of age, height, setbacks and materials contributes to defining the character.

The fieldwork confirms that most of the houses in the group have undergone renovation and restoration that retains and enhances the intact one storey weatherboard with hipped and gabled roof character.
7.13 Previous Heritage Studies

In 2004, Hunter History Consultants Pty Ltd did a brief historical analysis of the group in 2004 to accompany a development proposal. This history has been used as the basis of this assessment of cultural significance.

In 2005, the Land and Environment Court handed down a judgment that supported refusal of a development application for demolition of a dwelling. The reason was partly attributed to the observation that the area had potential heritage significance as a group of intact Federation houses. In refusing the appeal, the judgement concluded:

"There is real evidence that there is heritage significance in the streetscape, and cultural significance in the early origins of the subdivision, and the row of houses, and there is particular reference to the cultural significance of the existing house on No. 55 Glebe Road. The council is in the process of examining that."

The court also noted that because the houses are relatively intact they could be considered fine representative examples of the era of construction - i.e. between 1909 and 1915. The court noted:

"The reasons the streetscape is valuable also relates to heritage matters the respondent said. In this aspect:

(1) The land on which the row of houses stand was the first residential subdivision by the pioneering AA Company at The Junction.

(2) The consistency, aesthetic form, scale, detail, alignment and remnant external finishes of the row of houses are intact and demonstrate the early Federation cottage form of detached working persons' houses. Each house in the row had contributory significance for the whole row."

The court also noted that one of the dwellings, No 55 Glebe Road, was shown to have important historical associations with RJ Kilgour, a past mayor of Merewether, and whose son was the first to enlist locally in 1915 for the First World War. The judgement states "...there is a strong association with a prominent person of the locality and WWI. There was cultural heritage value in the existing house itself".

7.14 Assessment of Cultural Significance

This review has taken these principles further and applied an assessment of cultural significance based on the NSW State heritage inventory criteria. As a result of this, it is recommended that a formalised heritage conservation area be made in Schedule 5 of the Newcastle LEP. This recommendation should be reported to council after July 2015, and based on the boundaries as shown in Figure 7.4 below.

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22 Hunter History Consultants Pty Ltd for Jackson Teece Architects, October 2004
Cultural significance has been assessed using the NSW State Heritage Inventory criteria and inclusion and exclusion guidelines, as follows:

- **Criterion a - An item is important in the course, or pattern, of NSW’s cultural or natural history:**
  
  The proposed Glebe Road Federation Cottages Heritage Conservation Area is important in the course of Newcastle’s cultural history, as it demonstrates key aspects of the urban development of the city of Newcastle, including the gradual urban infill of land held by coal companies, including in this case, land owned by the Australian Agricultural Company. Released by the Australian Agricultural Company for auction in 1909, the group is important in the course of The Junction's cultural history as it represents the transition of this area from undeveloped mining land at the southern extremity of the AA Company's estate, to a residential area dating from the turn of the 20th century.

- **Criterion b - An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW’s cultural or natural history:**
  
  The house at 55 Glebe Road has associative significance with a prominent individual, being the home of RJ Kilgour who was one of the first mayors of the amalgamated City of Greater Newcastle. The group of houses itself has associational significance with the Australian Agricultural Company, and the south east boundary line abuts the easement of the former Burwood Coal and Copper Company railway line, which was the Merewether estate's coal haulage line.

- **Criterion c - An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW:**
  
  The proposed Glebe Road Federation Cottages Heritage Conservation Area is important in demonstrating aesthetic characteristics that define the Federation period and the style of housing of that period. These features include:
  
  1. Detached Federation cottages, with a detached single storey weatherboard cottage flanked by a driveway to one side, consistent 4 metre front setback and rear garden zones.
  2. The consistency in the scale, form, massing, style, and construction of houses and allotment layout. This is aesthetically significant while also being representative of residential construction across Newcastle up until 1915 when the last house was built.

- **Criterion d - An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons:**
  
  The area does not demonstrate this criterion to any notable degree.

- **Criterion e - An item has potential to yield information that will contribute to an understanding of NSW’s cultural or natural history:**
  
  The area does not demonstrate this criterion to any notable degree.
• **Criterion f - An item possesses uncommon, rare or endangered aspects of NSW’s cultural or natural history:**

The area does not demonstrate this criterion to any notable degree.

• **Criterion g - An item is important in demonstrating the principal characteristics of a class of NSW’s:**
  - cultural or natural places, or
  - cultural or natural environments.

The proposed Glebe Road Federation Cottages Heritage Conservation Area is important at the local level in demonstrating the principal characteristics of the Federation period and the nature of residential building construction in Newcastle between 1909 and 1915. The narrow window of time in which the precinct developed is significant in providing evidence of the key features of the Federation period including construction and building technologies, fashions and key elements of the Federation style, including the single storey scale of these modest dwellings, a symmetrical street frontage, open verandah, pyramidal roof form, hip and gable roofs, bearer and joist construction with lightweight cladding material (weatherboard), and the absence of garaging.

### 7.15 Desired Future Character Statement

This review has gathered information about the elements of heritage value in the Glebe road precinct, and the features that establish character and provide a sense of place that is recognisable and worth keeping. As a result of this work, a statement of desired future character has been prepared. If the area is subject to the regulation of a heritage conservation area, the following statement of desired future character would apply:

*The character of the proposed The Junction Federation cottages Heritage conservation area is made up of the single storey Federation cottages that were built between 1909-1920. The homogenous character of this precinct will be preserved and maintained through the retention of all contributory buildings, elements of visual interest and heritage significance. Elements that are to be preserved include:*

- **The building group at 55 to 75 Glebe Road, The Junction, is a fine representative example of a group of intact Federation era cottages which have high contributory value to the streetscape.**
- **The urban form which reflects a regular pattern of subdivision and development that dates from the 1900-1920.**
- **Side driveways with access to garages and on-site car parking accommodation at the rear of the house group.**
- **Items of heritage significance recommended for individual listing as heritage items in Schedule 5 of the Newcastle LEP.**
7.16 Contributory Buildings

Fieldwork was undertaken in 2015 to establish the overall level of intactness of this area. The location of contributory buildings has been mapped, see Figure 7.4.

Contributory buildings may be defined as those buildings that are part of the original building stock, or have historic or aesthetic significance, or make a positive contribution to the streetscape. Generally, buildings in this category had not been heavily altered or where alterations were evident these were of a scale or style that retained the character of the building. Removal of contributory buildings is detrimental to the heritage conservation area because these elements establish the prevailing character and reinforce its sense of place. On the other hand, demolition of and alterations to non-contributory buildings is encouraged if the replacement design is more in character with the streetscape. The contribution of any particular building to streetscape, character or heritage significance will guide the approach to development and assist in determining the degree of change that will be permitted.

Figure 7.4 - Proposed Glebe Road Heritage Conservation Area - contributory buildings map (Source: NCC GIS 18 August 2015)
Selected images of these houses are provided below:
7.17 Development standards and controls

The land to be incorporated into the proposed "The Junction HCA" currently has a maximum building height of 10m and an FSR of 0.9, which is inconsistent with the current built form on the land and would conflict with the conservation objectives that this review proposes.

Council does not currently apply numeric building height or FSR controls to its HCAs given these controls do not adequately dictate the desired building envelope outcomes, nor would they necessarily result in a built form that respects the character and significance of the existing building stock. Hence, it is recommended that consideration should be given to amending the LEP height of building and FSR maps to remove such controls from the subject land.

Detailed design guidelines should also be developed and included in the Heritage Technical Manual to ensure the heritage significance and character of this area is protected.

7.18 Community Survey 1 February 2016 - 14 March 2016

The results of the community survey are at Appendix A. The results of the questions posed to the community in the survey are summarised below:

Issue 1: The proposed Hamilton residential area should be included in the Newcastle LEP as a Heritage Conservation Area
62% of this group were in support with this proposal, while 31% indicated disagreement.

Issue 2: The heritage significance of properties at 32, 34 & 18 Gordon Avenue Hamilton should be assessed to determine if they should be listed as heritage items in the Newcastle LEP
62% agreed this this proposal (agree or strongly agree), while 17% disagreed with it. A further 17% were neutral towards this proposed changed and 3% were unsure/ not applicable.
**Issue 3:** A new heritage conservation area should be established to include all of the properties 55 to 75 Glebe Road, The Junction

The majority (14 of 17 people) were in agreement with this proposed change.

**Issue 4:** A locality specific set of development guidelines should be prepared to protect the single storey character of the potential new Glebe Road The Junction HCA

The majority (14 of 17 people) were in agreement with this proposed change.

Accordingly, this report recommends that Council proceed with the next stage to make these two areas heritage conservation areas, and to proceed with the listing of the houses at 18, 32 and 34 Gordon Avenue Hamilton. It is noted also that there is an existing heritage item at 36 Gordon Avenue Hamilton.
CHAPTER EIGHT -
PLANNING FRAMEWORK
8.1 Introduction

This chapter sets out the planning context in which Council regulates and manages the heritage conservation areas listed in the Newcastle LEP 2012.

In New South Wales, the responsibility for managing heritage is split between the State and Local Governments. The NSW Heritage Council, assisted by the NSW Office of Environment and Heritage, has responsibility for items of State heritage significance listed on the State Heritage Register and for relics of State and Local significance. Local Government has responsibility for local heritage, through Local Environmental Plans and Development Control Plans.

The State Heritage Register lists items and areas that have significance to the people of New South Wales, while nationally significant places are listed on the National Heritage List administered by the Commonwealth Department of Environment, Water, Sustainability Population, and Communities.

The three legal instruments that regulate cultural heritage in New South Wales are:
1. *NSW Heritage Act* 1977
2. *Environmental Planning and Assessment Act*, 1979

Identifying and listing items and places of heritage significance are the first steps in protecting and managing those places deemed to be of heritage significance. Listing heritage places on statutory heritage registers provides a legal framework for managing the approval of major changes so that heritage significance is retained and not diminished.

The legal framework in which Council’s heritage listings are made is through the Environmental Planning and Assessment Act 1979 which enables the listing of heritage items and places through the local environmental plan (LEP) and the provisions for regulating heritage that are contained in the standard instrument LEP. This is the mechanism in which heritage items, heritage conservation areas and archaeological sites are recognised and managed.

8.2 Local Environmental Plan

The standard instrument provisions contained in the Newcastle Local Environmental 2012 (LEP) establish the consent requirements for development in heritage conservation areas and provide the assessment framework for Council to follow when assessing a development application within a HCA.

The provisions at Part 5 of the LEP set out the matters that Council must consider in its assessment of a development application within a heritage conservation area. Generally, the majority of development activities within HCAs will need the consent of Council, with the exception of some types of exempt development.
Under Part 5.10 of the Newcastle LEP 2012, Council must assess the impact of a proposed development on the heritage significance of the heritage conservation area concerned. Most types of development in a heritage conservation area, unless exempt, will require development consent via a development application or complying development certificate. An applicant must demonstrate that there is no heritage impact or that it is minimal and measures to manage impacts are in place.

The heritage clauses at Part 5 of the NLEP are mandatory clauses set by the NSW Department of Planning and Environment. Council has no discretion to alter or amend these provisions. The LEP is however supported by the Newcastle DCP, to clarify and provide direction on the types of alterations permissible in a heritage conservation area. This is further explained below.

Heritage Conservation Areas are listed in Schedule 5 of the LEP. Any changes to boundaries, the removal of a heritage conservation area or creating HCA or heritage item requires an amendment to the LEP.

### 8.3 Development Control Plan

A development control plan is a guideline document that supports the LEP with more detailed planning and design guidelines. The *Newcastle Development Control Plan 2012* contains controls for heritage conservation areas in Section 5.07, and brings together separate DCP chapters including DCP 44 (The Hill, Cooks Hill and Newcastle East), DCP 57 (part of The Hill), and DCP 58 (Hamilton South Garden Suburb) into the one section.

The DCP enables merit assessment of development applications because it contains relevant aims, objectives and controls on future development. The Council can implement the DCP in a discretionary capacity, and in this way, flexibility in the controls supports design without prescribing the means of achieving it. Applicants can demonstrate that the objectives for the area have been met but can decide on the design options in meeting these objectives. In this sense, the DCP is a non-restrictive planning tool. This approach takes into account the principle that there is no one-size-fits-all that will be suitable within the heritage conservation area, that technology and fashions change and therefore provided that the objectives are met Council does not prescribe the actual means of achieving it.

This review has found that minor changes could be made to the DCP to strengthen it. Firstly, the Statement of Desired Future Character introduced throughout this review for each of the HCAs should be included in the DCP. Secondly, Section 5.07 should be moved to the locality specific provisions in Section 6, so that the relationship between desired future character and development outcomes is better emphasised. Section 5.07 is currently included in Section 5 of the DCP which focusses on environmental protection provisions.
The DCP is supported by the Heritage Technical Manual, effectively an instruction manual for development in heritage areas containing detailed design guidelines. During the early stages of this review, an architect was engaged to prepare design concepts for the Cooks Hill Heritage Conservation Area. A package of design concepts was prepared for each building type including terrace houses, bungalows and cottages. A package was prepared and workshopped with an industry liaison group who provided feedback to refine the designs. As a result of this work, the Heritage Technical Manual was amended and 3D design concepts modelling height, bulk, scale and siting were introduced into the Manual. These design concepts illustrate a range of best practice options for changing buildings in the Cooks Hill HCA.

These designs should now be applied to the Newcastle East and the Hill Heritage Conservation Areas. They should not be applied to the Hamilton South Garden Suburb HCA as further detailed guidelines will need to be prepared specifically to retain the single storey bungalow character of the Garden Suburb HCA. The two proposed HCAs identified in Chapter 7 of this report will also need development guidelines similar to the Hamilton South Garden Suburb HCA, as the building typologies and character are similar.

8.4 Land Use Zones

Zoning is the division of land into categories. The categories determine the types of activities and development allowed in the area they cover. Zoning is guided by the standard instrument provisions in the LEP, and is identified in maps and relevant land use tables.

The standard Instrument LEP contains 34 zoning categories including various residential zones. For each zone it identifies certain mandatory objectives and mandatory land uses that are permitted with consent or permitted without consent. It also includes a range of land uses which are prohibited in each zone.

During the course of this review, Council adopted a Local Planning Strategy to guide future land use and development for the Newcastle LGA. Two of the relevant strategic directions are:

- Ensure development controls and zoning protect the heritage significance of items and conservation areas.
- Evaluate the extent of R3 Medium Density zone within heritage conservation areas where identified desired character is inconsistent with zone directions.

It was not within the scope of this review to examine land use zones. This work will be undertaken in a future review.

---

23 The Local Planning Strategy was adopted on 28 July 2015.
CHAPTER NINE - FINAL RECOMMENDATIONS
9.1 Introduction

The final recommendations made in this report are a result of the analysis of the submissions made by the community, agencies, and the survey results conducted by Newcastle Voice, during the exhibition period (1 February - 14 March 2016).

The final recommendations for managing the Heritage Conservation Areas, are as follows:

1. **Cooks Hill** - it is recommended that the east boundary is extended to include the lower portion of Kitchener and Anzac Parades, and reduced at Darby Street to exclude the section of Darby Street as identified in the report.

2. **Hamilton South 'Garden Suburb'** - it is recommended that the north boundary of the HCA is extended to include the north side of Denison Street and Ada Street. It is recommended that the Glebe Road boundary proposal (to exclude a small section), does not proceed.

3. **The Hill** - It is recommended that the boundary adjustment to include High Street, and parts of Anzac and Kitchener Parades, proceed as recommended in the report. The city block between King, Church, Bolton and Newcomen be further investigated for possible excision from The Hill HCA as part of a future review of the City Centre HCA.

4. **Hamilton Business Area Heritage Conservation Area** - it is recommended that the removal of the Hamilton Business Area Heritage Conservation Area not proceed. It is not recommended that the sandstone kerb and gutters not be heritage listed at this time.

5. **Proposed Heritage Conservation Areas for Glebe Road Federation cottages and Hamilton Residential** - it is recommended that the proposed making of two additional heritage conservation areas proceed.

6. **Newcastle DCP amendments** - It is recommended that the DCP is amended to include the statements of desired future character and revised statements of heritage significance as contained in the report.

7. **Heritage Technical Manual** - It is recommended that the Technical Manual is updated to include the contributory maps. It is also recommended that the Cooks Hill design guideline also apply to the Hill, Newcastle East and the proposed Hamilton Residential heritage conservation area.

8. **Potential heritage items** - Parkway Avenue as a landscape heritage item and 18, 32 and 34 Gordon Avenue Hamilton - it is recommended that the proposed heritage listing of these four items proceed. Parkway Avenue is to include the entire length from its commencement at Tudor Street through its terminus at Memorial Drive Bar Beach.

9. **New design guidelines** - it is recommended that locality specific design guidelines be prepared for Hamilton South Garden Suburb, and Glebe Road cottage heritage conservation area respectively. These are to be included in the technical manual.

10. **It is recommended that DCP section for HCAs be moved from Environmental Controls to Locality Specific controls.**

11. **It was not within the scope of this review to examine land use zones. However, it is recommended that the zoning in all HCAs be examined at a future date.**
CHAPTER TEN -
REFERENCES


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Suters Busteed and Lester Firth (1984), Heritage Study: Newcastle Inner Areas Conservation Planning Study Final Report, prepared on behalf of Newcastle City Council and Department of Environment and Planning

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APPENDIX A -

NEWCASTLE VOICE COMMUNITY SURVEY

1 February 2016 - 14 March 2016
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Executive Summary

The exhibition looked into the following Heritage Conservation Areas (HCA); Cooks Hill, Hamilton South Garden Suburb, Hamilton Business Centre, The Hill, Proposed Hamilton resident area, Proposed Glebe Road cottages and Newcastle East. Participants were asked to provide feedback on the HCA proposals.

- The survey received a total of 195 people participants.
- 3x information sessions received 108 attendees in total.

Cooks Hill

- A total of 35 people made comment on the proposals for Cooks Hill.
- Majority of participants in survey were property owners and residents.
- 72% agreed that The Cooks Hill HCA should be extended to include portions of Anzac and Kitchener Parades.
- 46% agreed that Darby Street, between Parry and Tooke Street, should be removed from the heritage conservation area.

Hamilton South Garden Suburb

- A total of 132 people made comment on the proposals for Hamilton South Garden Suburb.
- Majority of participants in survey were property owners and residents.
- 48% did not support the proposal to remove part of Glebe Road from the boundary of Hamilton South Garden Suburb HCA.
- 72% agreed with the inclusion of a part of Denison Street and Ada Street in Hamilton East in the Hamilton South Garden Suburb.
- 83% agreed that Parkway Avenue should be included as a landscape heritage item in Schedule 5 of the Newcastle LEP.
- 66% agreed that specific guidelines for alterations and additions to be prepared and included in the Heritage Technical Manual.

Hamilton Business Centre Heritage Conservation Area

- Just 12 people made comment on the proposed changes to the Hamilton Business Centre HCA.
- Majority of participants were many those with interest in the area.
- Seven out of 12 participants disagreed that Hamilton Beaumont Street should be -delisted as a HCA.
- Six out of 12 agreed that the sandstone kerb and gutters in Beaumont Street should be heritage listed.
The Hill

- A total of 27 people made comment on the proposals for The Hill HCA.
- 67% of participants were owners and residents.
- 63% agreed with the proposal to extend the boundary of The Hill HCA to include parts of Kitchener Parade, Anzac, Bingle and High Streets.

Proposed Hamilton Residential Area

- A total of 29 people made comment on the proposals for Hamilton Residential HCA.
- 59% of participants were owners and residents.
- 62% agreed with the proposal for Hamilton residential area to be included in the Newcastle LEP as a Heritage Conservation Area.
- 62% agreed that the heritage significance of properties at 32, 34 and 18 Gordon Avenue Hamilton should be assessed to determine if they should be listed as heritage items in the Newcastle LEP.

Proposed Glebe Road - The Junction cottages

- Just 17 people made comment on the proposed changes to the Glebe Road - The Junction cottages.
- Majority of participants were many those with interest in the area.
- 14 out of 17 agreed with the proposal for a new heritage conservation area to be established to include all of the properties 55 to 75 Glebe Road, The Junction.
- 14 out of 17 agreed with the proposal for a locality specific set of development guidelines to be prepared to protect the single storey character of the potential new HCA.

Newcastle East

- Just 17 people made comment on the proposed changes to the Newcastle East HCA.
- Comments were received about recommendation to update the Heritage Technical Manual to revise statement of significance and new contributory buildings map.

All areas

Zoning was not within the scope of this review, however Council recognises the need to analyse the zones in HCAs.

- 60% of participants agreed that Council should examine the applicable land use zones and zone objectives in each HCA.
- 58% agreed that analysis of the zones should be high priority.
Introduction

In 2014, a process was begun to review all of the Heritage Conservation Areas (HCAs) within the Newcastle Local Government Area, including Cooks Hill, Hamilton South ‘Garden Suburb’, The Hill, Newcastle East and the Newcastle City Centre HCAs.

As part of the initial review, it was deemed as crucial that local community members should be consulted through information sessions and a survey. The objectives of these HCA review and consultation processes are to:

- ensure that as the city moves towards 2030, an attractive and distinctive built environment, focussed around people reinforces Newcastle’s unique sense of identity and built environment and is aligned with objective 5.1 of the 2030 Newcastle Community Strategic Plan.
- produce development controls that are consistent with the principles of the Newcastle Heritage Policy, are easy to use and are unambiguous.
- produce development controls that are supported by a clear character statement that shapes the desired future character of each area.
- ensure that Council’s role in regulating development in heritage areas is supported by a framework of heritage planning best practice, as defined by the NSW Heritage Council.
- incorporate input from property owners, residents and industry stakeholders on how the development controls can be better structured and designed.
- The data captured was considered in the re-formulation of the statement of significance and desired future character statements. Elements addressed were considered and were applicable incorporated into the Development Control Plan (DCP). The results from study were reported to Council as part of the HCA review as background data.
Objectives

The Heritage Conservation Area review report (draft) examines the heritage significance, character, boundaries and planning context of five heritage conservation areas (HCAs). It includes the results of community surveys of residents in four of the HCAs, which occurred in 2014 and 2015.

The draft document presents a range of findings that may or may not result in future changes to the LEP.

Should changes to the LEP occur at a future time, there may be impacts on the residents in these areas. Feedback on the findings of the HCA report is required in order to create a priority action plan and finalise the report for adoption by Council.

On 24 November 2015, Council resolved:

- to place the draft Review of Heritage Conservation Areas Report on public exhibition for six weeks
- Commence community consultation process with residents to notify residents about the content and recommendations in the report and receive a report back with the outcomes.

Public Exhibition objectives:

- build community awareness of exhibition period for draft Review of HCA
- awareness that feedback on the draft is invited and will help to prioritise actions for future heritage management and direction
- provide opportunities for feedback on the draft report
- gain an understanding for the levels of support for new areas of Heritage Conservation Areas and the expanded HCAs
- focus on feedback from property owners

Engagement framework

Community participation refers to the degree to which the community is involved in planning and decision making. Council recognises and abides by best practice principles developed by the International Association for Public Participation (IAP2). The IAP2 Public Participation Spectrum, outlined in figure 1, is a useful tool to help identify and select the appropriate level of public participation, from informing the community through to empowering the community to make decisions that will be implemented by Council. This study falls under INFORM and CONSULT in the IAP2’s Public Participation Spectrum.
**Methodology**

The HCA survey was open from 1 February 2016 and 14 March 2016.

Survey was promoted through Information Sessions, Council's website, Facebook, Media release, Newcastle Voice newsletter, and direct email to those that had participated in previous surveys. In addition to this, 4972 brochures promoting the survey were mailed to affected property owners.

Three information sessions were held during the exhibition period:

- **Monday 8 February 2016 6-7pm Glebe Road Uniting Church Merewether - Church hall (good disability access)**

- **Tuesday 9 February 2016 - 6-7pm The “Yoga” Room, 21 Gordon Ave Hamilton (U3A building) (no disability access)**

- **Wednesday 10 February - 6-7pm The Benson Library - Newcastle East Public School (good disability access)**

Information sessions were facilitated by Council's community engagement officer and a presentation was undertaken by Council's heritage strategist. Notes taken at session are included in Appendix III.
Data Collection
Formal written submissions were collected by Strategic Planning. The Newcastle Voice survey was a structured questionnaire with a total of 12 questions about the proposed changes. A copy of the survey is included in Appendix I.

Data handling
All data was analysed by NCC Community Engagement staff using Sparq panel management and survey software.

Respondents
A total of 195 people participated in the survey.

Participants were invited to provide feedback on proposals across a number of areas. Each participant could nominate any number of areas of interest to them. Figure 2 below shows the number of participants providing comment on proposals in each area.

Figure 2: Participation by area

<table>
<thead>
<tr>
<th>Area of interest</th>
<th>Number of people commenting</th>
<th>% of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooks Hill</td>
<td>35</td>
<td>18%</td>
</tr>
<tr>
<td>Hamilton South Garden Suburb</td>
<td>132</td>
<td>68%</td>
</tr>
<tr>
<td>Hamilton Business Centre</td>
<td>12</td>
<td>6%</td>
</tr>
<tr>
<td>The Hill</td>
<td>27</td>
<td>14%</td>
</tr>
<tr>
<td>Proposed Hamilton resident area</td>
<td>29</td>
<td>15%</td>
</tr>
<tr>
<td>Proposed Glebe Road cottages</td>
<td>17</td>
<td>9%</td>
</tr>
<tr>
<td>Newcastle East</td>
<td>17</td>
<td>9%</td>
</tr>
</tbody>
</table>

The majority of participants made comment on one area only (83%); however, almost 1 in 10 (9%) made comment on two areas and some made comment on a total of 3, 4, 6 or 7 areas, as shown in Figure 3.
Figure 3: Percentage providing feedback on one or more areas

![Percentage commenting on multiple areas graph]

Figure 4 below shows the overlap in areas being commented on:

**Figure 4: Participation by area**

<table>
<thead>
<tr>
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<td>TOTAL</td>
<td>35</td>
<td>132</td>
<td>12</td>
<td>27</td>
<td>29</td>
<td>17</td>
<td>17</td>
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<tr>
<td>Cooks Hill</td>
<td>-</td>
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<td>The Hill</td>
<td>10</td>
<td>7</td>
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<td>-</td>
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</tr>
<tr>
<td>Prop. HRA</td>
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<td>-</td>
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<td>6</td>
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<td>7</td>
<td>11</td>
<td>6</td>
<td>7</td>
<td>-</td>
</tr>
</tbody>
</table>
Survey Findings

Cooks Hill

Profile

A total of 35 people made comment on the proposals for Cooks Hill. This is a small sample size so care should be taken when reviewing the data for this group.

Of those responding to plans for the Cooks Hill area, the majority (74%) were Owners, none were Renters (0%); and the remainder were 'Others'. 'Others' included an LGA ratepayer, a Parkway Avenue resident, a 'user', someone interested in the area, someone with housing provided and 3 others.

The majority were Residents (71%); none were Business Owners although one person indicated they were both a resident and business owner.

The issues

Those commenting on the Cooks Hill area were asked to indicate the strength of their agreement with two issues:
**Issue 1: The Cooks Hill HCA should be extended to include portions of Anzac and Kitchener Parades**

The majority (72%) agreed, or strongly agreed, with this statement, while 14% disagreed (disagree or strongly disagree).

Further comments made on this issue are shown in Figure 7.

**Figure 7: Further comments made on Cooks Hills proposal 1**

<table>
<thead>
<tr>
<th>Response to Issue 1</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>the inclusion of this area will only cause unnecessary restriction and more paper work to complete renovations or repairs to my properties. It will also risk a reduction in the value of my properties with no consequent benefit.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>I believe that the northern side of Nesca Pde between Brooks St and Kitchener Pde should also be included. This strip of the street until very recently was a strip of significant character - weatherboard and brick bungalows from the early 20th century. It was an attractive streetscape with real heritage appeal and interest. In the last two years two properties have been demolished and very modern houses that have been designed with no consideration for the existing streetscape have been built. It is important that this trend does not continue in the street.</td>
</tr>
<tr>
<td>Strongly agree (and strongly agree to issue 2)</td>
<td>As a resident of parkway Ave for the past 16 years I value the quiet nature of the area. The last thing I want is increased traffic flow along the street this will impact our lifestyle and property values.</td>
</tr>
</tbody>
</table>
**Issue 2: Darby Street, between Parry and Tooke Street, should be removed from the heritage conservation area**

Sentiment for the second statement explored was more divided, with 46% agreeing (agree or strongly agree) and 34% disagreeing (disagree or strongly disagree). 20% were neutral (no answer or neither).

Further comments made on this issue are shown in Figure 8 below.

**Figure 8: Further comments made on Cooks Hills proposal 2**

<table>
<thead>
<tr>
<th>Response to Issue 2</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>No. No heritage area should be reduced. That just plays into the hands of the unscrupulous.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Any future proposals for development of the area on Darby Street between Parry and Tooke Street should fit in with the heritage conservation area. One has to question how these developments were approved with the Cooks Hill Conservation Area in place!!</td>
</tr>
</tbody>
</table>
| Strongly disagree   | The HCA between Centennial park and Darby St was in reasonable shape before the Soviet era inspired concrete bomb shelter was recently erected behind 139-143 Dawson st. Either pull it down or cover it with something like vertical gardens to make it conform to the HCA that it was supposed to be subject to. If these are not options then:
1. Someone’s nuts should be on the line for permitting the travesty of a future slum nucleus to be built the way it was
2. Excise the Dawson st lots whose heritage values have been seriously degraded by that development from the HCA, as well as the Darby St section. |
| Strongly agree      | the surrounding cooks hill area has ample HCA, agree with the decision to remove the main street CA and let businesses adapt to modern trends and growth |
| Strongly agree      | I think in the case of the Darby St/area, with the exclusion of St John’s Church etc is developed with no particular advantage to the conservation area any more. I do think that the Anzac Pde and Kitchener Pde should be included. |
| Strongly agree (also strongly agreed to issue 1) | As a resident of parkway ave for the past 16 years I value the quiet nature of the area. The last thing I want is increased traffic flow along the street this will impact our lifestyle and property values. |
| Neither             | The developments approved on Darby Street compromise the HCA by their bulk and their impact on on street parking in the vicinity. In my view changes at the edge of HCAs contribute to the erosion of streetscape values and add pressure on Council to enable changes within the HCA itself. |
Hamilton South Garden Suburb

Profile

A total of 132 people made comment on the proposals for Hamilton South Garden Suburb. The majority of this group (89%) were Owners, just 1% were Renters; and the remainder were 'Others'. The majority were Residents (92%); none were Business Owners and the remainder (8%) selected 'Other'.

Figure 9: Profile of Hamilton South Garden Suburb Respondents

The issues

Those commenting on the Hamilton South Garden Suburb area were asked to indicate the strength of their agreement with four issues. The results can be seen below in figure 10.
**Figure 10: Extent of agreement with proposed changes to Hamilton South Garden Suburb HCA**

### Issue 1: Removal of part of Glebe Road from the boundary of Hamilton South Garden Suburb HCA

A greater proportion was against this proposal (48%) than supported it (38%). 21% took a neutral stance.

### Issue 2: Inclusion of a part of Denison Street and Ada Street in Hamilton East in the Hamilton South Garden Suburb

The majority (72%) agreed, or strongly agreed, with this proposal. In contrast 9% disagreed (disagree or strongly disagree).

### Issue 3: Parkway Avenue should be included as a landscape heritage item in Schedule 5 of the Newcastle LEP

Support for this proposal was very strong, with 83% of respondents indicating strong agreement and a further 5% recording agreement. 7% disagreed (disagree or strongly disagree).

### Issue 4: Specific guidelines for alterations and additions to be prepared and included in the Heritage Technical Manual

Support for this proposal was also strong, with 66% of respondents recording agreement (agree or strongly agree). In contrast, 7% disagreed (disagree or strongly disagree). It is worth noting that 15% responded with "not sure/ not applicable" and a further 11% were neutral on the matter.
### Figure 11: Further comments made on Hamilton South Garden Suburbs proposals

<table>
<thead>
<tr>
<th>Issue 1</th>
<th>Issue 2</th>
<th>Issue 3</th>
<th>Issue 4</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>Neither</td>
<td>Neither</td>
<td>Neither</td>
<td>This area looks run down, assuming the HCA is removed, this area could be revitalised by residents and council.</td>
</tr>
<tr>
<td>Neither</td>
<td>Strongly disagree</td>
<td>Neither</td>
<td>Strongly disagree</td>
<td>The affected residents campaigned very hard recently to limit the development 65-67 Denison St because it did not fit in with the design of the area and a number of other issues whereby it did not comply with area requirements. Now this development has been approved and houses have been demolished to make way for modern residential and business development, that council has now decided to make it a heritage area that would have prevented this development from occurring. This is crazy and smacks of hypocrisy. The timing is impeccable! I will suspect the affected residents that are affected will again campaign very hard to prevent this ludicrous rezoning from occurring.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Agree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Strong guidelines that Council will enforce and support is crucial to ensure no further erosion of properties in the area to non contributory status. in the past Council has entertained such development proposals and surrounding residents have needed to campaign against such undesirable development applications. Bottom line Council must actively promote and support its own heritage guidelines.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>The removal of the boundary directly impacts my property in that I live at 566 National Park St. The removal means that my property becomes the edge of the boundary. I am concerned about this change as it means that medium/high density housing could be built on my fence line overshadowing my property. I am already surrounded by 3 x 2 storey properties that overlook and overshadow my property. My recommendation is that a transitional boundary (buffer zone) be proposed which limits what can be built around the edges of boundaries. This would address the issue of having a 5 storey apartment complex next to a single storey heritage house.</td>
</tr>
<tr>
<td>Neither</td>
<td>Strongly disagree</td>
<td>Strongly disagree</td>
<td>Strongly disagree</td>
<td>Just that I think it is important to protect the heritage value of the area and reduce the impact of extensions.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Agree</td>
<td>Neither</td>
<td>Neither</td>
<td>After listening to the presentation from council, I still cant understand why an area with contributing houses would be removed. My concerns are as follows Parking, Storm water, flooding, Traffic management and the effect on Cram street, street scape. I am strongly against removing the Glebe rd area from the heritage area.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Strongly agree</td>
<td>Strongly disagree</td>
<td>Strongly disagree</td>
<td>Under no circumstances should the Glebe road boundary be altered. This includes a church and church hall used by the community.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Agree</td>
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<tr>
<td>If the area on Glebe road was to be removed and high density accommodation built on the site I am concerned about Stormwater drainage from those properties to those within the Heritage area, shading of dwellings in Cram Street, increased traffic and noise to dwellings in Cram Street, and the impact on the character and setting of the streetscape looking towards the south side of Cram Street. There is also concern that any new buildings on the Glebe road site would not be in keeping with the building form, scale, roof scale, and in keeping with other notable features of the area.</td>
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<tr>
<td>Strongly disagree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
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</tr>
<tr>
<td>Parkway Avenues grassed median and Pine trees are a unique residential feature of genuine heritage conservation significance to the entire City of Newcastle. This architecturally designed promenade was a key component in the landscape planning of the Hamilton South Garden Suburb. Originally including lovely flowerbeds (we lived here at the time) the significance of the term Garden Suburb is closely linked to features such as this. With constant pressure from traffic and building construction it is encumbered upon us as Historical custodians to take measures to protect this Avenue of aesthetically pleasing lines and greenery and acknowledge prominent role it plays in the City. The Novocastrians Parkway Avenue is synonymous with beautiful tree lined street.</td>
<td></td>
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</tr>
<tr>
<td>Strongly disagree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td></td>
</tr>
<tr>
<td>There are very few areas in Newcastle that are as unique as parkway avenue for the architecture of the homes and the central garden and pine trees. It would be tragic if this was not conserved for future generations. I would trust that the council and local government would have the foresight to ensure this occurs.</td>
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<tr>
<td>Strongly disagree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td></td>
</tr>
<tr>
<td>The streetscape of Parkway Ave should remain as is and protected from any alterations under the Newcastle LEP. It is an important part of the original Garden Suburb.</td>
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</tr>
<tr>
<td>Strongly disagree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td></td>
</tr>
<tr>
<td>Removal of the part on Glebe Road would allow for multi-storey buildings to be built along this section. This would impact on the streetscape of Cram Street significantly, which would mean that views from the street on Cram Street would no longer be in keeping with the Heritage Conservation Area requirements.</td>
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</tr>
<tr>
<td>Strongly disagree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td></td>
</tr>
<tr>
<td>Former Town Planner Brent Knowles advised me personally that he had personally sought through detailed analysis that the grassed verged separating Parkway Avenue and the Norfolk Island Tree species had been gazetted by the NSW Government. Furthermore, this area should and does fall within the BURRA charter. The trees and the lineal form of Parkway Avenue were designed to provide clear lineal indicators to other significant landmarks including the city’s Obelisk and provide directions to visitors/tourists to the CBD and the harbour foreshore area. It is also a significant part of the historical drive that leads to our beach areas. It is interesting to note that a Heritage Architect is to be commissioned to aid Council in the decision making process, critically relevant to that should be a parallel commission of a reputable Heritage Landscape Architect that Council deemed important enough to ask me as principal designer for Newcastle Christ Church Cathedral to seek such expert (Heritage Landscape Architect) to determine our DA and CC application for the</td>
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</tbody>
</table>
The area is classed as a ‘Garden Suburb’ the issues relating to Landscape and existing hardscape/softscapes plantings trees and Heritage impact DO NOT fall within the ambit of a General Heritage Architect - that is why there are two separate disciplines in Architecture. Please involve the appropriate expert for Heritage Garden issues that incorporate the important protection of this highly heritage significant grassed/tree verge separating Parkway Avenue Hamilton South.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Strongly agree</th>
<th>Strongly agree</th>
<th>Strongly agree</th>
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</thead>
<tbody>
<tr>
<td>Parkway Avenue should be included in the LEP within the HSCA</td>
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</table>

<table>
<thead>
<tr>
<th>Neither</th>
<th>Strongly agree</th>
<th>Strongly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAVE THE MEDIAN STRIP IN PARKWAY AVE AS IS, WE NEED SOME GREEN SPACE, AS FAR AS TRAFFIC SIDE GOES, THE STEWART AVE LIGHTS NEED TO BE ON LONGER FOR RIGHT HAND TURNS EACH WAY, THE BANK UP OF TRAFFIC ONLY LAST TILL SCHOOL STUDENTS ARRIVE AT S.F.C. GOING EAST TO GRAMMER SCHOOL AND TOWN THERE IS MORE TRAVELLING THAT WAY. ANY CHANGES TO THESE BOUNDARY’S WE NEED TO BE GIVEN PLENTY OF NOTICE.</td>
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<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>parkway ave is one of the grand boulevard of newcastle and should be protected especially those green median strips and norfolk island pines ... it is an iconic street of Newcastle</td>
<td></td>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The RMS proposal to increase traffic flow on Parkway Ave would greatly diminish the heritage value of the Hamilton South area.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Strongly disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a suggestion that RMS wish to narrow the Parkway Ave median strip to allow for more traffic flow along Parkway Ave. I strongly oppose this &amp; I believe that Council should oppose this too. Such a development would greatly diminish the landscape heritage value of the Hamilton South Garden Suburb.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>We live on Parkway Avenue. We have a young family and walk to and from Hamilton South Public School every day. Parkway Avenue, including its pedestrian friendly wide central median, is an important feature of the Hamilton South garden Suburb and should be reflected by inclusion in the LEP as an item of significant value to Heritage Conservation Plan.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Neither</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The verge and trees must be protected in Parkway Ave</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Neither</th>
<th>Neither</th>
<th>Strongly agree</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>The entire length of Parkway Avenue has historic relevance. As one of the suburbs main streets it is visually pleasing, creating a sense of space and a park-like feeling. Its central strip of Norfolk Island Pines is environmentally important contributing to air quality (helping balance the increasing traffic pollution) and supporting a variety of bird life. Parkway Avenue and Hamilton garden Suburb, as they exist today, should be</td>
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</table>
included in the LEP and as such would remain true to the designers original aspirations.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
<th>Strongly agree</th>
<th>Strongly agree</th>
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</thead>
<tbody>
<tr>
<td>I strongly believe that Parkway Avenue should be left as is, no change should be made to the current size of the median strip.</td>
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</table>

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<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parkway avenue is an iconic feature of Newcastle and should retain its heritage features.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
<th>Strongly agree</th>
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</thead>
<tbody>
<tr>
<td>We have too many to enumerate here. Suffice to say since the introduction of the various HCAs there have been many non complying developments approved on the boundaries and within the areas themselves by either clever words or deceit. It would seem that there is one rule for the residents and one for the developers. Why is it that compliance is only for those who cannot afford the costly legal challenges, which when they come from developers Council just caves in. Prime example is the disgusting Bimet development which really did not satisfy the HCA requirements of being on a boundary.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Glebe road area which it would seem may be excised from the HS HCA - why? Was there an application to remove this area? If so who applied? A person or entity?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The area should NOT be removed as it will only create a precedent for peripheral areas along the HCAs (as with Bimet - but that fell under SEPP which of course is an out for Council)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>As for Parkway Avenue it is time that this area properly protected by heritage conservation laws as this is the last intact and thus significant area by the fact that it intact; designed by Sir John Sulman.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The amenity of this area has been destroyed by the huge volumes of traffic, some of which should not even be in the area (GVM&gt;Strongly agreeT)and the excessive speed at which it travels.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ideals of the HCA are certainly not being adhered to by any save for the residents.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parkway Avenue is a residential street and not any sort of heavy vehicular traffic road. It is supposedly a Collector Road which in theory gathers traffic from the local roads and feeds it to the arterial roadway system. It is not for through traffic both heavy and too fast for a residential area. It would seem that these issues are overlooked for the sake of Council and the RMS not wishing to improve the surrounding arterial road system.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>By the way we are not the only residents who think this way. Should you wish further discussion please feel</td>
<td></td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Since Parkway was an original avenue in the setup of the Garden Suburb concept it should always be retained / conserved for its absolute heritage value.</td>
<td></td>
</tr>
<tr>
<td>Parkway Avenue is a vitally important feature of Hamilton South Garden Suburb and this should be reflected by inclusion in the LEP as an item of huge significant value to Heritage Conservation Plan. This should not be altered in any way.</td>
<td></td>
</tr>
<tr>
<td>Not only should Parkway avenue be included in the Newcastle LEP, it should also be brought back to how it was in its early years with the inclusion of gardens on the central median strip. After all, it is classified as the 'Garden Suburb' of Newcastle. Lets show the world what can be done. Maybe this can be done with the NCC working close with the property owners, and possibly getting them involved in some of the streetscape/garden upkeep.</td>
<td></td>
</tr>
<tr>
<td>The Avenue also has the potential to become one of Newcastle's premier Christmas attraction by installing lighting in the Norfolk Island pines from Hamilton to Bar Beach. Imagine the 'sea of lights' as you drive down Parkway Avenue at Christmas. Again this could be done by the NCC, with the help of the residents of the area.</td>
<td></td>
</tr>
<tr>
<td>Its vital Parkway Ave remains an important feature of the Hamilton South Garden Suburb and this must be reflected by the inclusion in the LEP as an item of significant value to Heritage conservation plan</td>
<td></td>
</tr>
<tr>
<td>Please Parkway Avenue must be included in the LEP as an item of huge and immense importance to the heritage conservation plan the value is priceless to this area</td>
<td></td>
</tr>
<tr>
<td>This Heritage conservation plan will only benefit by Parkway Avenue being included in the LEP Parkway Avenue is a huge important and historical part of Hamilton South and it must remain that way including the majestic Norfolk Pines that line this street</td>
<td></td>
</tr>
<tr>
<td>Parkway Avenue is a vital and important part of the Hamilton South Garden Suburb, it has been forever the Norfolk Pines are majestic and the native birds such as cockatoos on this strip are a daily morning and afternoon occurrence please keep parkway Ave in the LEP for historical and environmental and heritage significant No not change this</td>
<td></td>
</tr>
<tr>
<td>Parkway Ave with its green and wooded divide is a unique feature of area part of Newcastle. If there are plans to widen the thoroughfare, consideration must be given to the fact that there are two large</td>
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</tbody>
</table>
schools on this road with many students having vehicles these days. The confusion and congestion before and after school times is already quite dangerous, and this would be exacerbated by increased traffic flows and speed.

<table>
<thead>
<tr>
<th>Neither</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Parkway is an important feature of the Hamilton East area and should be reflected by inclusion in the LEP as an item of significant value to heritage conservation in the area.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neither</td>
<td>Agree</td>
<td>Strongly agree</td>
<td>NA</td>
<td>I don't want to see Parkway avenue altered in any way. Reducing the size of the median strip would spoil the beauty of the avenue and rob the area of its distinctive character. I can't believe that this would even be considered as it is such a long-standing and beloved part of Hamilton South and surrounds.</td>
</tr>
<tr>
<td>Agree</td>
<td>Agree</td>
<td>Strongly agree</td>
<td>Neither</td>
<td>parkway ave is a significant land mark in Newcastle and should be protected</td>
</tr>
<tr>
<td>Neither</td>
<td>Agree</td>
<td>Strongly agree</td>
<td>Agree</td>
<td>Parkway avenue has one of the most enduring features of suburban Newcastle in the long median strip and the Norfolk pine trees. It is a heritage of grand planning dating back to post WW1 and the early 1920's. There are 3 schools along its length and it has many years of efforts to calm traffic in what is already a neighbourhood zone. It was a travesty when the traffic lights were so poorly constructed at Stewart avenue causing traffic chaos on a regular basis. The streets were never meant to be feeder roads and never designed to be the next main road parallel to Glebe and King streets. There should be less traffic not more, if anything add a proper 'cycles only' cycle path instead.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly oppose removal of part of Glebe Road from boundary of Hamilton South HCA.</td>
</tr>
<tr>
<td>Agree</td>
<td>Neither</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Isn't the Ada St section where they've just knocked down 4 houses??</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Strongly disagree</td>
<td>Strongly disagree</td>
<td>Strongly disagree</td>
<td>Removal of the boundary in Glebe road from the Hamilton south Garden suburb HCA would be catastrophic for the existing residences of the surrounding area. The only person who would benefit from this is the person who brought the property on glebe road where Merewether smash repairs previously was. My property boarders this property and I would be the most disadvantaged in the area. Having renovated our home within the guidelines of the heritage area and at great expense we should be protected by inappropriate/unsympathetic developments. The impact on traffic, parking, noise, loss of value of our property</td>
</tr>
</tbody>
</table>
and the destruction of our lifestyle would be unthinkable. Council planning dept has been lacking by its own admission and has already allowed inappropriate development/renovations in the heritage area but this must stop. This could open the flood gates for potential high density development of up to 4 storeys. Common sense should prevail and this MUST NOT GO AHEAD

<p>| Strongly disagree | Neither | Agree | Neither | The proposed removal from the Garden Suburb HCA of properties on Glebe Road between National Park and Smith Streets due to the buildings in this area being deemed of non-contributory to HCA is of great concern. The heritage significance of these particular properties is not relevant - it is the impact on the surrounding area that a change in the HCA boundary may have. That is, the removal of the HCA in effect makes way for the potential high density development which this area is currently protected from. The building mass, population density and inherent traffic issues from potential over-development will adversely affect the liveability of all surrounding residents who purchased in this area for the very benefits the Garden Suburb HCA currently provides. There is absolutely no good reason to remove this portion of Glebe Road from the HCA. Any future development of this portion of Glebe Road needs to be consistent with existing HCA of Hamilton South Garden Suburb. |
| NA | NA | Strongly agree | NA | A once beautiful Newcastle icon is being transformed into a high density raceway. Modern urban design thinking strongly suggests the car is not the future and yet we continue to cater to this. Time to think back to what is beauty and how to increase it or at least maintain what we have. |
| Strongly disagree | Strongly agree | Strongly agree | NA | Parkway Avenue is an amazing street that should be protected from development. It is well known by visitors from all over the area, enjoyed by the residents for its style and the median strip wonderful for minimising the noise of traffic. |
| Strongly disagree | Strongly disagree | Strongly agree | Strongly agree | The Grass Median in Parkway Avenue must be maintained in order to preserve the original plan for the Garden Suburb. Council should also abide by the concept of a 'Garden Suburb' and disallow the removal of trees which provide shade and a healthy environment. Council should not allow the area to become a concrete jungle with out of proportion areas of concrete which do not allow for drainage or absorption. Considering the rates which residents pay, the Council should not allow the Garden Suburb environment to be destroyed. It is a fitting entry path to the beaches and coastline and a city which will hopefully rise again! |
| Agree | Disagree | Strongly agree | Strongly agree | Do not alter Parkway Ave or its median strip at all. We are under strict rules about what alterations, extensions, fences and even garage doors that we can have in this heritage area so under NO circumstances can the heritage streetscape of Parkway Ave be altered as it is the main feature of this heritage area. |
| Agree | Agree | Strongly agree | Strongly agree | Parkway Ave must be included in the Ncle LEP to preserve the median strip for it’s heritage significance, and keep the area as it is meant to be. |</p>
<table>
<thead>
<tr>
<th>Agree</th>
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<th>Agree</th>
<th>Parkway Avenue is an important feature of the Hamilton South Garden Suburb and this be reflected by inclusion in the LEP as an item of significant value to the Heritage Conservation Plan.</th>
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<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>Strongly agree</td>
<td>NA</td>
<td>Parkway Ave is and must remain as a landscape heritage item in the LEP it holds the Hamilton South Garden Suburb together and establishes this area with beauty and must remain for all citizens of Newcastle and surrounds. The key importance is the Norfolk pines, the wide grassed strip to define and attracts the wildlife (cockatoos) historically garden beds were also along the Avenue as well providing extra beauty to this garden strip. Without Parkway Avenue remaining as is there would be no defined Hamilton South Garden Suburb heritage Area. please preserve this wonderful avenue as it has historically been intended.</td>
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<tr>
<td>NA</td>
<td>NA</td>
<td>Strongly agree</td>
<td>NA</td>
<td>Parkway Ave is and must remain as a landscape heritage item in the LEP it holds the Hamilton South Garden Suburb together and establishes this area with beauty and must remain for all citizens of Newcastle and surrounds. The key importance is the Norfolk pines and the wide grassed strip to define this lovely garden strip. Without Parkway Avenue remaining as is there would be no defined Hamilton South Garden Suburb heritage Area. please preserve this wonderful avenue as it has historically been intended it holds such significant value to the Heratage Conservation Plan</td>
</tr>
<tr>
<td>Neither</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>NA</td>
<td>Protect our heritage and beauty of the area and especially Parkway ave .. No more traffic should be funnelled down it.</td>
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<tr>
<td>Strongly disagree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Residents in the Hamilton South Garden Suburb HCA have made significant investment in restoration and maintenance of their homes in keeping with the provisions of the heritage conservation plan for the suburb.Any change to the perimeter of the HCA will erode this process as well as impacting on the privacy and amenity of residents who have planned the back yard areas of their properties to highlight family and social recreation.A rezoning along Glebe Road raises the prospect of these areas being overlooked. The removal of Glebe Road properties from the HCA has the potential to seriously impact on the character, safety and facility of the residents of Cram and National Park Streets. Any intensification of development on Glebe Road will also impact on the drainage to Cram Street which has experienced serious flooding issues in the past. Cram Street takes storm drainage from Glebe Road and Turnbull Street.A significant increase in building coverage and hard surface on the Glebe Road properties would greatly increase flooding potential in Cram Street. Parking restrictions on Glebe Road already cause increased parking on Cram Street. This would be increased by any change in development density on Glebe Road. My survey of properties from 152 Glebe Road to 214 Glebe Road shows that the majority of households in that area have kept their housing within the concepts of the HCA.</td>
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</table>
From Smith Street to National Park Street six original houses have been restored in keeping with the HCA and one left unrestored. Three new houses have been built outside the concepts of the HCA. In the Glebe Road section beyond National Park Street four houses retain the fabric and concept of the HCA and one has been redeveloped out of sympathy with The HCA.

The Glebe Road frontage forms an integral part of the HCA and should be left intact.

Five properties abutting the corner of Smith and National Park Street form a neighbourhood commercial precinct. Any redevelopment of the commercial premises should be constrained to the current footprint to retain its neighbourhood focus.

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Parkway Avenue is a major feature of Hamilton South, with its greenscape and Norfolk Island Pines being a significant value to the Heritage Conservation Plan. It also gives the area a sense of space within an area that is becoming densely populated.

The Hamilton South Garden Suburb HCA is highly valued & strongly supported by residents within the area. This is reflected in the excellent condition of the properties within the HCA and the high resale value when properties are sold.

The heritage classification has given owners, & potential owners greater certainty that the heritage character of the area will be respected & preserved and that unsympathetic development will not be permissible. This confidence is reflected in the quality of property maintenance & in the respectful way that the character of the dwellings, their surrounds & the streetscape has been honoured during maintenance, renovations, restorations and additions on the housing stock within the HCA.

I strongly object to the removal of part of Glebe Road from the Hamilton South Garden Suburb HCA. The majority of the houses in this section of Glebe Road are still intact as originally constructed and still reflect the character & streetscape of the HCA.

If this area of Glebe Road is rezoned the current properties & land in Glebe Road will be subject to redevelopment. Existing properties & open space will be destroyed & replaced by buildings of much greater height & density & a totally different character to that of the HCA.

These changes will degrade the quality & amenity of the properties behind them in Cram Street & National Park Street. Privacy will be destroyed by much taller properties overlooking both the curtilage & rooms at the rear of the existing dwellings in Cram & National Park Streets.

I have seen these detrimental effects caused by a Glebe Road redevelopment which looms over a neighbour's home in Cram Street. The pool, backyard & rear rooms in the neighbours property are totally overlooked by this unsympathetic two story development on the boundary fence thus reducing the amenity for the home owners & the resale potential of the affected property. This redevelopment happened prior to the
It is important for council to consider that residents within the HCA purchased their homes and have invested heavily in quality maintenance, restorations, renovations & additions which respected the heritage character of the area. Owners did so in the belief that they had the certainty of protection against detrimental redevelopment in their designated Heritage Conservation Area. Now it is proposed to change the rules. This will adversely impact on the capital asset of the property owners and the amenity of the affected residents. Long standing drainage & flooding issues in Cram Street will be exacerbated by the increasing density & coverage of open space in Glebe Road which will occur with the proposed rezoning. Glebe Road is higher than Cram Street which has a long history of acting as a drainage detention basin for Glebe Road.

Parking will become much more of a problem due to increased numbers of occupants from higher density redevelopment in Glebe Road. Overflow parking will occur in Cram & National Parks Streets. As our existing area has revitalised with younger families moving into the area there is much more on street parking in Cram & National Park Streets due to increasing levels of vehicle ownership. Because more family members have personal or work vehicles they need to park on the street.

Higher density will increase traffic management & safety issues as residents & visitors at the new dwellings will need to enter & exit onto the very busy Glebe Road.

The adverse impacts associated with the proposed removal of part of Glebe Road from the boundary of the Hamilton South Garden Suburb HCA have not been adequately considered by Council. The proposed rezoning & resulting redevelopment along Glebe Road will degrade the character of the HCA & over time lead to attrition in the HCA. There will be a decline in amenity for affected residents & the quality & value of the affected homes in Cram Street & National Park Street will be downgraded because property owners will not have the same commitment to living in & maintaining these properties. The HCA will be undermined by attrition.

Additional comments: I have lived in our family home since January 1980. The Uniting Church properties, the Vet (with attached original house), the Smash Repair business (now closed) at the National Park end of Glebe Road and the Automotive business (with its adjacent home in Smith Street) at the Smith Street end of Glebe Road have been long established. These commercial properties & the Church properties have been an accepted part of the local character of the Hamilton South Garden Suburb.

The three commercial properties on Glebe Road west of National Park Street are more recent additions in the Glebe Road streetscape. When we moved into our home in 1980 there was an original two story brick building with Chemist shop on the ground floor, & a dwelling above, on the corner of Glebe Road & National Park Street. Adjacent to this were the small Take Away hot food shop & a butcher shop. The Chemist shop building which was built in the style and character of the area was demolished due to earthquake damage. The other two shops were demolished & replaced by very unsympathetic commercial buildings prior to the declaration of the HCA.
Church property has encroached on Robinson Place Reserve for many years. Apparently this encroachment includes the old wooden building which was moved onto the site many years ago. When the Church congregation was more active with younger members, the Church claimed exclusive use of the tennis court on Robinson Place Reserve & neighbouring residents were excluded from usage. As the congregation aged the tennis courts have fallen into disrepair & Council has not rectified this situation.

Robinson Place Reserve has been used by local children, (including our own children & grandchildren) over the years. The mowing of the Reserve has been shared by the Church or Council over the years. Local residents have planted many of the trees & shrubs in Robinson Place Reserve & these provide a very pleasant backdrop for local residents and a bird habitat in the Reserve.

For unexplained reasons Council has removed the Robinson Place Reserve signage. Hopefully this does not signal Council’s intent to reclassify the Reserve to allow residential development on this land (& on any surplus property owned by the Church). Although that may be a popular direction for developers it will not be so with local residents who value the open space & tree cover in Robinson Place Reserve and have contributed to improvements by tree planting in the Reserve.

It is also worth noting that local residents have, and continue to pay very high rates while the Church would have been be exempt from rates. The encroachment of Church property onto Robinson Place Reserve has been either at no cost, or for a peppercorn rent. Apparently the Lease expired many years ago.

Any rezoning of Robinson Place Reserve to allow residential development would lead to the destruction of the Reserve. Any development on the Reserve would have detrimental impacts on the surrounding homes. Part of the value of these homes has been based on the attractive open space, recreation space & tree cover in the Reserve. Development would destroy the amenity & property values for the adjoining residents (in ways as outlined previously in this submission).

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<td>Parkway Avenue in its current form (wide median and substantial/aged pine trees) provides significant landscaped heritage qualities. From Hamilton South to Bar Beach the avenue should be protected and included in the LEP.</td>
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<td>Disagree</td>
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<tr>
<td>Parkway Avenue is the last remaining intact boulevard in the original Garden Suburb plan by the famous Architect and Planner, Sir John Sulman. Its impressive streetscape, and relatively unspoiled architectural development makes it a unique and imposing icon, well worthy of preservation and listing on the State Heritage register.</td>
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<td>Whilst residents have previously stated their strong desire to preserve the form of Parkway Ave, RMS are currently planning to encroach on the central median to allow more more traffic to flow through the Heritage Area. Construction work would certainly endanger the root systems of the magnificent Norfolk Island pines, and allow the diesel and petrol exhaust fumes emanating from trucks to discharge directly into the tree canopies causing distress and likely permanent damage.</td>
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RMS should be more concerned with the safety aspects of encouraging more traffic past the three large schools, and resident amenity and access to their properties, and taking measures to divert traffic away from Parkway Avenue. There appears to be little communication between RMS and Council in this matter.

The recent and sudden demolition of all of the remaining properties in Denison St appears highly coincidental and worthy of investigation.

Newcastle has so few beautiful avenues, why destroy one now. Its a wonderful access area to some of Newcastle's prime attractions such as the beach, the ANZAC memorial walk and King Edward Park.

Re: Parkway Avenue

It absolutely should be included as a landscape heritage item in Schedule Strongly agree of the Newcastle LEP.

NCC's draft report supports this view with numerous references to it being "...the most enduring aspect...of the area..."

Previous heritage studies "...recommend the heritage listing of Parkway Avenue...as (a) heritage item...

"Elements that are to be preserved include the existing appearance, form and function of Parkway Avenue, including the road verges, street trees....and the central median that splits the carriageway into two single lane roads".

Based on the above quote from NCC's own reports, I fail to see any viable option other than including Parkway Avenue as a landscape heritage item in Schedule Strongly agree of the Newcastle LEP.

NCC / RMS (whoever is responsible) are currently complicit in eroding the heritage significance of this thoroughfare. It is a collector road, not a sub-arterial road. The signalisation of the junction with Stewart Avenue accelerated this process and NCC / RMS continue to ignore residents concerns. Vehicle weight limits are never enforced, the traffic calming measures (speed humps / Agree0km/h zone, redirection of traffic flow along Smith St) never materialised with no feedback from NCC. The median strip continues to be damaged by illegally parked cars during winter weekends.

If NCC are serious about protecting THE most enduring aspect of the Hamilton South Garden Suburb HCA, they MUST act now and enforce the rules.

Re proposed new area for Ada St and Denison St:

- Zoning was changed from Residential to Mixed Use Medium Density in 2012, no residents were aware of change, therefore there was no effective public consultation
- First we knew of zoning change was when the current Denison St development was proposed; there were
over 50 submissions from the public against it - most feeling it was out of character

- Following the earthquake houses had to be rebuilt in residential style sympathetic to heritage, why change this attitude?
- Re the block between Ada and Parkway; 7 of 8 houses are owner occupied; Neither houses were built for the Australian Agricultural Company circa 1890 and all are well maintained (the area is older than Hamilton Sth, I have a photo from 1910 showing Parkway did not exist as a road);
- Many residents have spent a lot upgrading properties sympathetic to heritage concerns
- There are many fine heritage properties in Denison St as well, as well as the nearby Ambulance Station and TAFE, which are both heritage listed
- The character of the area is at a tipping point due to decision to change to medium density mixed use, and the subsequent development in Denison St, which is completely out of character. This needs to be overturned, else the heritage character of this area, which is far older than Hamilton South, will be lost.
- In my view, the houses on Denison St between Ada St and Parry St should be added as well. All the properties are residential style and many are pre 1930. E.G. The house on corner of Ada and Denison is also circa 1890

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<td>All building approval should adhere to strict heritage building guidelines in order to preserve heritage areas. The beautiful streetscape of Parkway Avenue should be preserved as it is one aspect of Newcastle Heritage that defines Newcastle as the city that it is.</td>
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<td>With the current push for major developments in this area (such as the current 3 storey mixed commercial residential building comprising of 4 medical suites and 10 units) it is incredibly important that we look to protect the heritage homes and landscape that we have left. This also includes the iconic Parkway avenue landscape and median strip.</td>
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<tr>
<td>The landscape of Parkway Ave must be preserved as a gateway to the beach and should be protected as a heritage item.</td>
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<td>Essential to maintain landscape heritage of Parkway Ave. (Traffic control needed ++)</td>
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<td>Parkway Avenue is a unique streetscape in the city of Newcastle and has considerable environmental and aesthetic importance to all Novocastrians. Heritage and Conservation is not only about buildings but also about preserving our environment from the ever increasing construction of hard surfaces which place greater stress on our trees and grassed areas. Over time both Stewart and Gordon Avenues have lost their medians</td>
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to vehicular traffic priority. Due to poor road planning Gordon Avenue no longer safely links with the current road system and so attracts very little traffic.

Case in point: That median should never have been removed.

Parkway Avenue should be protected from the same fate and priority listed without further alteration to the LEP.

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<td>Re inclusion of Parkway Avenue as a heritage item, I am particularly interested in ensuring there is no loss of median area or trees due to road widening or addition of turn pockets etc.</td>
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<td>I also quote the draft report p.40: &quot;The existing appearance, form and function of Parkway Avenue, including the road verges, street trees, bridge abutments at Cottage Creek, and the central median that splits the carriageway into two single lane roads&quot;</td>
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<td>I have a concern that Parkway Avenue westbound between National Park and Stewart has become a de facto two lane road. Please take action to return this section of Parkway to a single lane of traffic.</td>
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<td>Parkway Avenue is a Newcastle landmark and I strongly support the proposal to have it listed as a landscape heritage item to protect this wonderful thoroughfare.</td>
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<td>I am very please and supportive that the Council is adopting a positive and proactive to heritage planning and guidelines.</td>
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<td>I agree with the Review of Heritage Conservation Areas Draft Report in that Parkway Avenue should be listed as a heritage item in Newcastle LEP 2012 because it is a fundamental surviving element of Sulman’s Garden Suburb design. The Avenue with its generous median and plantings of Norfolk pines are central to the suburb’s street pattern and should be protected from potential changes to street design and functionality. Parkway Avenue is the highest in the order of streets in Hamilton South and should be left intact to protect the visible evidence of Newcastle’s efforts to grow out of its coal mining town beginnings into the diverse City it is today. The Garden Suburb principles that the Avenue exemplifies, contributes to the City’s prosperity and generosity.</td>
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<td>Every city must have an identity and an integral part of its identity shows a blend of valued heritage areas and the need to be progressive. A progressive approach is to preserve the integrity of heritage areas and manage the somewhat &quot;sneaky&quot; erosion of valuable heritage areas.</td>
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<td>As a community we need to ensure the proposed boundaries of heritage areas are managed sensitively</td>
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<td>I live in the Hamilton South Garden Suburb precinct and find the lack of traffic control to be a major concern to the integrity and amenity of this highly regarded residential area.</td>
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I recently hosted a visitor from Minnesota USA who remarked about the attractiveness of the Norfolk Pine lined Parkway Avenue.

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<td>AS a resident of the Garden Suburb my whole life, I feel it would be detrimental to reduce the size of the median strip in Parkway Avenue. Having grown up in Parkway Avenue and having now bought in Hebburn street, part of the appeal to this area was the trees and parks, not seen like this anywhere else in Newcastle.</td>
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| I don't believe that the fact that inappropriate development has occurred in Glebe road is a reason to move the boundary. This would place at risk what we see from our back yard. (3 Cram st). Leaving it as is maintains a logical boundary at one side Glebe road and may lead to future sympathetic development. I also think it's a backward step to water down the rules that have been in place for 20 years. 
I haven't commented on the heritage technical manual but do think that any clarification between "guidelines" and rules is probably a good thing. We were able to do what I believe was a suitable extension without issue. 
I would be very happy to discuss my views further if required. Thanks you |

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<td>I have lived in Parkway Avenue for over 50 years and throughout that time it has been a beautiful avenue in the true sense of the word forming a centerpiece for what is now the garden suburb. Even though the council no longer maintains the many garden beds which are now buried under grass or full of dying hibiscus it still forms a graceful corridor from the centre of town to the beach. This tree-lined avenue and its maintenance in its current form (single lane carriageway) is vital if this area is to reflect its name as the Garden Suburb. Beyond this it is a unique and beautiful feature within the city, one we should care for and protect in its current form.</td>
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<td>do not widen Parkway Avenue. I live in Parkway Ave, have young children and do not want any more traffic along this road. I bought here because it is not a major road and changing this will impact on our enjoyment of living here and would negatively impact property values.</td>
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<td>Under no circumstances should the amenity of Parkway Ave be reduced to accommodate additional traffic. It is a residential area - not a major thoroughfare.</td>
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<td>In these areas the existing streetscape ought to be maintained. There are other, more appropriate, areas suitable for development.</td>
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<tr>
<td>Do not wish to see Parkway Avenue Hamilton changed in any manner whatsoever. The median strip is a delightful and essential part of Hamilton and surrounds.</td>
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<td>Parkway Ave is the last of the wide avenues with mature trees providing a pleasant vista to drive down. I wish</td>
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<tr>
<td>Neither</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>----------------</td>
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</tr>
<tr>
<td>I have been a resident of this area for the past NA years. This is a stunning original area of Hamilton with houses dating back well over 100 years. The loss of several houses of this era has recently occurred in Dennison which saw well over 10 objections to this loss occur. This demonstrates the communities love of our area and its heritage value. Our block in particular is one of the last remaining intact historic blocks of Parkway Ave. Our houses have histories with the beginning of the AA Company in this area. Preserving this history only adds to the history of our community as a whole.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Neither | Strongly disagree | Neither | Neither | Neither |
|----------------|----------------|----------------|----------------|
| Attention Sarah Cameron. |
| My objection to the proposed boundary changes are as follows. |
| 1. The proposed boundary changes will lead to rezoning and redevelopment in Glebe Road which will allow buildings of much greater height and density. This will be totally out of character with the existing homes in the HCA. |
| 2. High buildings will overview out homes and outdoor areas, this will lead to a loss of privacy in the rear of our homes. |
| 3. The streetscape as seen from the street and homes in Cram Street and National Park Street will be adversely impacted by increased heights and densities. |
| 4. Increased densities will lead to drainage and flooding problems in Cram Street. Glebe Road and Turnbull Street drain into Cram Street due to their higher elevation. Cram Street has a very long history of flooding in heavy rain. |
| 5. Parking will be increased in Cram Street due to increased densities. Parking is restricted in Glebe Road so excess parking from new residents and visitors will overflow into Cram Street and National Park Street. |
| 6. The above detrimental effects will make this area much less appealing to home owners. Downgrading of our amenity and homes will impact on the integrity of this part of the HCA. This will flow on to other parts of the HCA over time. |

<table>
<thead>
<tr>
<th>Neither</th>
<th>Strongly agree</th>
<th>Strongly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>the area of Denison and Ada St complement the area already heritage listed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beautiful buildings along Denison and the block of Ada and Parkway being the oldest in the area.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consideration should also be given to Denison st between Parkway and Parry St it has a high degree of continuity, with 11 of the 13 houses on the north side original and the sth side showing how medical suits had to be built in keeping with the street scape following the earthquake. which is now part of the Newcastle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heritage</td>
<td>Denison once was a grand street and with some love this could be returned.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I strongly oppose any change to the median in Parkway Ave. Parkway Avenue has been the main town-planning feature of this area since my family first moved here in 1947. Most of the houses are in close-to-original prospect from what I can remember as a child way back then. The main part of this is the very wide gorgeous green median that runs the full length which even looks better without the oleandases that were there in the 1940s. Any reduction in the size of the median for things like turning lanes at Stewart/Parkway lights can be done just as well by re-routing the bicycle route to quieter streets like Jenner Parade to cross Stewart Ave at the pedestrian lights at Alexander St and thereby have a full 2 lanes of traffic at the Stewart/Parkway lights (we live on that corner). The cycleway can then follow Alexander and Beaumont to the Racecourse and Dumaresq St. Any proposal for light rail along Parkway is crazy - if trams come south they should go to The Junction (servicing Bar Beach) and on to Merewether or Dixon Park Beaches and then back along Gordon Avenue and Denison St to Wickham.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>As a resident of Parkway Avenue I strongly object to any changes that would bring additional traffic to this street or reduce the aesthetic of the current width of the medium strip and the beauty of existing trees. In fact I would promote additional streetscaping involving additional tree plantings and gardens to enhance this avenue towards its original design - as a generous green corridor. Turning it into a busier road would have a significant and detrimental impacts on residents including increased noise levels, loss of aesthetic, negative impact on heritage areas either side of Parkway Ave, higher risk of road accidents (car and pedestrian) and a downgrade in the sense of community as residents would be less likely to spend time in their front yards/verges if it were a busy road. These negatives would also reduce property values which is significant to me as I moved here Agree years ago to take advantage of the current environment and streetscape. I would therefore be disadvantaged be losing these advantages and losing property value. I strongly object to making Parkway Ave a busier street and support it being listed on the LEP.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hamilton Business Centre Heritage Conservation Areas

Just 12 people made comment on the proposed changes to the Hamilton Business Centre HCA. This is a very small sample size and care must be taken when reviewing this data. For this reason the data is reported in terms of numbers of people rather than as percentages.

Just 2 of the 12 were owners, and 2 of the 12 were residents. None were renters and none were Business Owners.

**Figure 12: Profile of Hamilton Business Centre HCA Respondents**

The issues

Those commenting on the Hamilton Business Centre HCA area were asked to indicate the strength of their agreement with two issues. The results can be seen below in figure 13.
**Figure 13: Extent of agreement with proposed changes to Hamilton Business Centre HCA**

<table>
<thead>
<tr>
<th>Issue 1: Delist Hamilton Beaumont Street as a HCA</th>
<th>Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>1</td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
</tr>
<tr>
<td>Neither</td>
<td>2</td>
</tr>
<tr>
<td>Agree</td>
<td>0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Issue 2: Consideration of potential new heritage items in Newcastle LEP</th>
<th>Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>1</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Neither</td>
<td>2</td>
</tr>
<tr>
<td>Agree</td>
<td>1</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>3</td>
</tr>
<tr>
<td>Neither</td>
<td>3</td>
</tr>
</tbody>
</table>

**Issue 1: Hamilton Beaumont Street should be -delisted as a HCA**

Disagreement with this proposal was greater than agreement with it, with 7 people disagreeing and 4 people agreeing.

**Issue 2: The sandstone kerb and gutters in Beaumont Street should be heritage listed.**

Six of the twelve responders indicated agreement with this proposal. 4 disagreed and the remaining 2 voted either neutral or unsure/not applicable.

**Figure 14: Further comments made on Hamilton Business Centre proposals**

<table>
<thead>
<tr>
<th>Response to Issue 1</th>
<th>Response to Issue 2</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>Strongly disagree</td>
<td>I think the Hamilton Business centre has struggled over the past decade to grow as a top income earner for the city. Removing the HCA from the businesses centre will give and residents and business owners more ownership to transform the heart of Hamilton.</td>
</tr>
<tr>
<td>Agree</td>
<td>Agree</td>
<td>I think Beaumont Street business precinct is looking untidy at present, with a few premises unoccupied. The Islington end is looking far better, so I have no objections to the precinct having the opportunity to be smartened up by removing the Heritage category.</td>
</tr>
<tr>
<td>Agree</td>
<td>Agree</td>
<td>Future development in the street should reflect the scale of the existing streetscape.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Agree</td>
<td>The streetscape is unique to this strip. However there should be proper cleaning of the street/footpath and maintenance. There are too many Asian food shops/eateries in this area it should be more available to/for Southern Europe cuisine as is the history of this strip and it's ethnic influence.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Neither</td>
<td>I do not see that these features really contribute greatly to the streetscape. I would rather see modern kerbs and gutters that suit the</td>
</tr>
</tbody>
</table>
The Hill
Profile
A total of 27 people made comment on the proposals for The Hill HCA. This is a small sample size and care should be taken when reviewing the data.

Approximately two-thirds of this group were Owners (67%) and two-thirds were Residents (67%) - note that not all owners were also residents. No Renters and No Business Owners participated.

Figure 15: Profile of The Hill HCA Respondents
The issues

Those commenting on the The Hill HCA area were asked to indicate the strength of their agreement with one issue. The results can be seen below in figure 8.

**Issue 1: The boundary of The Hill HCA should be extended to include parts of Kitchener Parade, Anzac, Bingle and High Streets**

![Extent of agreement with proposed changes to The Hill HCA](image)

Agreement with this proposal was greater than disagreement, with approximately two-thirds (63%) agreeing (agree or strongly agree) and one-third (37%) people disagreeing (disagree or strongly disagree).

**Figure 17: Further comments made on The Hill HCA proposals**

<table>
<thead>
<tr>
<th>Response to Issue 1</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>this area needs to be included urgently to prevent the redevelopment in an inconsistent way with the neighborhood</td>
</tr>
<tr>
<td></td>
<td>Obviously in this area there will be a tendency towards developments:</td>
</tr>
<tr>
<td></td>
<td>1. designed to maximise revenue-gathering</td>
</tr>
<tr>
<td></td>
<td>2. obsessed with size and grandeur at the expense of aesthetics and impact on neighbours</td>
</tr>
<tr>
<td></td>
<td>3. unsympathetic to the gracious character of the area</td>
</tr>
<tr>
<td></td>
<td>Therefore we are keen to see our area included in the heritage conservation zone</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Although there are some 'out of character' buildings here there are quite a few houses worthy of conservation protection. Listing this area will prevent redevelopment and</td>
</tr>
<tr>
<td>Agree</td>
<td>Reconstruction of unsympathetic buildings on the fringe of an existing conservation area.</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Yes I strongly agree.</td>
</tr>
<tr>
<td></td>
<td>However I believe that the whole of the eastern side of Lemnos Pde should be included in the extended HCA zone.</td>
</tr>
<tr>
<td></td>
<td>According to me reading of the criteria, the following houses in that eastern side of Lemnos Pde would be classified as follows.</td>
</tr>
<tr>
<td></td>
<td>No 1 - a modern architecturally designed house with features sympathetic to the streets heritage styles - e.g pitched roof.</td>
</tr>
<tr>
<td></td>
<td>No 1A as above</td>
</tr>
<tr>
<td></td>
<td>No 3 neutral / contributory</td>
</tr>
<tr>
<td></td>
<td>No 5 contributory</td>
</tr>
<tr>
<td></td>
<td>No 7 neutral contributory (pitched roof)</td>
</tr>
<tr>
<td></td>
<td>No 9 contributory</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>I strongly agree with the boundary extension but R3 (medium density) development should not be permitted in a Heritage Conservation area.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>I am very pleased to endorse this addition to The Hill Conservation Heritage Area. I would now like to encourage our Council to ensure that these heritage areas are not over-crowded by medium density development (R3) as has happened in other parts of Newcastle and NSW. These heritage areas should be left to demonstrate to all Novocastrians and to tourists visiting our City our pride in our history. They should be available to future generations and not drowned by adjacent high rise development. We have a very special heritage to proclaim.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Ensure that all property owners are consulted on the potential change and its implication for property maintenance and improvements.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>This action would decrease the house values in the proposed area and although I value heritage and my home is approx 100 years old and beautifully restored I feel it unfair that I should lose value by councils actions</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>The approval of developments not consistent with existing building stock over many years by NCC, particularly on the northern side of High Street, has created a hodgepodge of conflicting building styles and densities which makes it a case of &quot;try and spot the heritage houses.&quot; The inclusion of buildings at 11A and 30 High Street as contributing to the heritage values of 19th century and inter-war houses makes me wonder what the consultants were thinking. Presumably this means that the future development of modern style houses such as No. 11A will be OK if the boundary adjustment is approved. The issue of including High Street in the existing HCA has been examined extensively in the past and no compelling reasons were found for its inclusion. Council should only include new areas in HCAs where there has been a low level of attrition and degradation of the housing stock to be protected and not where the streetscape has already been significantly altered by inappropriate development. The area is also progressively being turned into a parking lot due to the failure of NCC to provide adequate parking in the CBD which is hardly consistent with HCA values.</td>
</tr>
<tr>
<td></td>
<td>This will restrict my ability to renovate and repair my property that I have lived in for nearly 50 years. There is no obvious benefit to owners and a risk of de-valuing my property if I choose to sell.</td>
</tr>
<tr>
<td></td>
<td>Council already has substantial regulations and another level of regulations is not required or wanted</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>These changes will make it difficult for owners to make updates to their properties as required. Having to get approval for this constantly will be a real problem.</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>I agree with Council’s endeavours to promote conservation through efforts like identifying potential heritage, raising community awareness about heritage, and establishing and managing conservation zones. However, the proposal to extend the existing area would significantly deteriorate the fabric that constitutes a true heritage conservation area.</td>
</tr>
<tr>
<td></td>
<td>In simple terms, a conservation area is one that is historic in character and is special or attractive enough to warrant protection to maintain the traditional, special and individual character of a place. The Terrace and other areas within the existing Conservation Zone in my view meet this criteria. However, the extension of the zone as proposed will achieve nothing but to fossilise the proposed extension area and not allow it to evolve with the modern world that Newcastle City is becoming. My home for example was constructed in 1998 and a large percentage of other homes were also built around the same time. They have no heritage significance or character and they add nothing to making the existing Conservation Zone any “more special.” I do however consider the terrace homes on the northern eastern side of Bingle Street would be the only properties worthy of inclusion in any proposed extension of the conservation zone.</td>
</tr>
<tr>
<td></td>
<td>I also recognise the counter argument that whilst conservation area status does lead to additional planning constraints and considerations for the land owner, the purpose of conservation is not about preventing all change but about managing it in a way which preserves its special interest. The extension area proposed has no areas of special interest. While the benefits of owning a property in a conservation zone tend to be intangible in nature and flow from the pleasure or enjoyment associated with owning a historic or unique house of conservation value, the costs are more real and visible. These include the cost of ensuring alterations and extensions to the house are sympathetic to homes of historic value and the owner is burdened by the opportunity cost of forgoing land development opportunities which are available to homes outside conservation zones.</td>
</tr>
<tr>
<td></td>
<td>There are also costs the Council bears in regulating land use in conservation zones and Council is dropping the ball when it comes to regulating the existing Conservation zone on The Hill. The significant property at 12 The Terrace for example standouts. It has been transformed into a illegal boarding house and the front downstairs verandah has a staircase constructed to connect it to the upstairs verandah! The conservation value, appeal, and aesthetics of the area is impacted because Council is unable to meet its regulatry and conservation demands. If Council cannot meet its current obligations it will be unable to meet them under and extended conservation zone.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>I believe each property in this area should be individually assessed and reviewed by Council should the Owner want to redevelop the property.</td>
</tr>
<tr>
<td></td>
<td>Whilst I appreciate keeping our history intact there are properties within this boundary which have absolutely no heritage value at all. They were built at a time when financial hardship meant the design and materials used were of a low standard and quality. The city is experiencing a revitalization and most developers (not talking about big developers but just ordinary people wanting to buy and live in the city) are sympathetic to the property's character and try to build or redevelop with that in mind. It would be a shame to see properties remain in disrepair because a person is not able to remodel in the modern accepted styles of today. Afterall, if we were to use this philosophy we would all still be living with dirt floors and architects would be redundant.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>I don't feel that the housing merits the extension of the HCA. The housing is not heritage, in the same way that the terrace is. There is a very high number of non-heritage housing and brick flat buildings. The mix of housing in High Street is typical of many streets in Newcastle that are not listed as HCA.</td>
<td></td>
</tr>
<tr>
<td>I am surprised to see my house listed as a contributing to the HCA as it is a 1950's brick building, which was rendered and painted baby blue in the 1990's!</td>
<td></td>
</tr>
<tr>
<td>The eco texture report supports extending the HCA to High Street in 2005, and this same report is then questioned as to whether it is a valid opinion due to the age. The report then simply states that “This review has re-assessed the area and finds certain streets are considered worthy of statutory listing as a HCA” can we have more information as to why the High Street extension is proposed?</td>
<td></td>
</tr>
<tr>
<td>None of the 2015 public voice responses included extending the HCA to include High Street.</td>
<td></td>
</tr>
<tr>
<td>It should be noted that Council previously approved the demolition of my house</td>
<td></td>
</tr>
<tr>
<td>I have spoken to many neighbours about this extension of the HCA and none have understood or been supportive of it. I hope that they have been able to take the time to raise their objections. I should also note that those that I have spoken to did not receive notification of the 2015 survey in the mail, myself included.</td>
<td></td>
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</tbody>
</table>
Proposed Hamilton Residential Area

Profile

A total of 29 people made comment on the proposals for Hamilton Residential HCA. This is a small sample size and care should be taken when reviewing the data.

The majority of this group were Owners (59%), with just 3% renting. An equivalent proportion (59%) were residents, with 3% Business Owners.

Figure 18: Profile of Hamilton Residential HCA Respondents
The issues

Those commenting on the proposed changes to the Hamilton Residential HCA were asked to indicate the strength of their agreement with two issues. The results can be seen below in figure 19.

**Figure 19: Extent of agreement with proposed changes to Hamilton Residential HCA**

### Extent of agreement with proposed changes for Hamilton Residential area

<table>
<thead>
<tr>
<th>Issue</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue 1: Expend the HCA area</td>
<td>10%</td>
<td>7%</td>
<td>17%</td>
<td>45%</td>
<td>21%</td>
</tr>
<tr>
<td>Issue 2: Consideration of potential new heritage items in the Newcastle LEP</td>
<td>17%</td>
<td>24%</td>
<td>38%</td>
<td>10%</td>
<td>7%</td>
</tr>
</tbody>
</table>

**Issue 1: The proposed Hamilton residential area should be included in the Newcastle LEP as a Heritage Conservation Area**

62% of this group were in support with this proposal, while 31% indicated disagreement.

**Issue 2: The heritage significance of properties at 32, 34 and 18 Gordon Avenue Hamilton should be assessed to determine if they should be listed as heritage items in the Newcastle LEP**

62% agreed this this proposal (agree or strongly agree), while 17% disagreed with it. A further 17% were neutral towards this proposed changed and 3% were unsure/ not applicable.
### Figure 20: Further comments made on the proposed Hamilton residential area HCA

<table>
<thead>
<tr>
<th>Response to Issue 1</th>
<th>Response to Issue 2</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>Disagree</td>
<td>I am not clear on the implications this would have on the processes for renovating our property. I expect it means that applications for approval for any renovation will need to be submitted (with additional fees). I also expect that there will be design limits or constraints imposed. For eg. Another house in our street is already listed and the owners were only permitted to restore not renovate. I am not clear on the implications for property value but I would suspect that it would not increase and is more likely to decrease the value as the costs and trades associated with maintaining or restoring may be unattractive to buyers. I don't understand the impact this will have on our rates. Will there be an additional fee or tax added to already escalating rates? There are many homes within the proposed area that are certainly not of heritage significance and I am left scratching my head over the motivations council have for wasting time and public money on such an unnecessary proposal. I can't see on any advantages or benefits for the home owner in this proposal.</td>
</tr>
</tbody>
</table>
| Disagree            | Neither             | The proposed Heritage Conservation Area for the Hamilton Residential Precinct is not supported given the mixed demographic the precinct attracts. The concept of a HCA means that the current proportion of contributory dwellings will tend to naturally limit who can take up residence within the precinct:
- Those with sufficient funds to maintain such dwellings, which becomes more expensive than modern designed and constructed dwellings;
- Those with sufficient funds to live within such dwellings, which again is generally more expensive due to greater requirements for unnatural heating, cooling, and lighting.
Currently, the village atmosphere exists because of the diversity in demographic: this may be put at risk, for example, students may not be able to afford even greater amounts of rent as living in heritage style housing becomes even more expensive; or relatively lower income families despite abilities to save, may not be able to afford to live there, as the greater living expense may be used up in the capital acquisition in a form of debt paydown. In the long term, this may sterilise the village like atmosphere enjoyed in the area. |
| Strongly disagree   | Neither             | I doubt the historical significance of this area is particularly valuable. I believe the more valuable HCA should be Veda street and surrounds as this was where the first Mine Superintendants were housed in the early days of the "Bog Hole". |
| Strongly agree      | Strongly agree      | I am delighted that the Council is considering this precinct as Heritage Conservation. Too many houses have been demolished and rebuilt with cement "boxes"or in many cases not maintained to an appropriate standard. |
I imagine there are some owners who buy properties as investments in this area and just let them out without doing any running repairs or improving gardens etc. So I am delighted that owners may be encouraged to take more pride in their houses.

Also, I was pleased to hear at the meeting last night that reclassification is likely to include streetscape improvements like street trees, traffic calming devices on corners etc. I would love to see a community garden established within the precinct somewhere, maybe the library or some other appropriate spot in the way it has been done on the corner of Bull and Darby Sts Cooks Hill -I think it would add a point of interest and a community gathering point as well as providing a practical asset to the community.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Making areas Heritage compliant places greater financial burden on property owners. Rates are increasing and it will not be possible to undertake reasonable repairs or changes to my home if heritage guidelines are imposed.</th>
</tr>
</thead>
</table>
| Strongly disagree | Strongly disagree | The make up of the building in this area are too diverse in nature and age to constitute any particular style or type of building to make any unique heritage style. Some examples: 21 Cameron street is circa 1905 whereas 25 Cameron St is less than 10 years old. The same is for 22 Cameron and the property two doors further down. 16 James street is circa 1991 and also 12 James street is also a "new property". This is also the case for the property two doors East as well as the duplex next door. Cnr. Lindsay and Cameron is also a "New house" again with no "Heritage value.

These are only a few examples within a small radius of 61 Lawson St, the house I own. Without going further this is typical of this suggested area.

I know that several of these dwellings were replaced because of damage ie. termite infestations making any repair impossible and because of the small size and shape of the blocks these owners were left with optimising their finances to construct feasible- non heritage dwellings.

Also, what kind of dwelling style would be suitable for this area as the current buildings range from wooden miner's to freestanding terraces, older apartments like the corner of James and Lawson to buildings exhibiting ethnic heritage styles and many houses built over the last 40 years?

That there is no particular heritage style to be preserved makes the idea silly. |
<p>| Strongly agree | Strongly agree | I think the heritage significance should include 32, 34, 36, 38 and also 5 James Street. |
| Strongly agree | Strongly agree | The property we own at 3 Murray st is included with which we agree. It is a 1900 house, which had separate kitchen and outside toilets. We have removed them and made the back modern. However, the front half is as it was when built except the front verandah which was demolished. We rebuilt it to look like the original. We think that the frontages should be heritage, but not the back. |</p>
<table>
<thead>
<tr>
<th>Neither</th>
<th>Neither</th>
<th>The Catholic Diocese of Maitland - Newcastle owns significant property interests to the East of the proposed Heritage Conservation Area. The properties owned and operated by the Diocese are at 841 and 845 Hunter Street, 246 - 252 Parry Street, 7 and 5 Selma Street Newcastle West. The Diocese is currently in the process of drafting a Master Plan for the sites mentioned above including the any additional sites affronting Selma Street. Given the Master Planning process is well underway the Diocese would like to understand the impact (if any) of the proposed Hamilton Residential Heritage Conservation Area on the Diocese's proposed draft Master Plan.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>Neither</td>
<td>Their should be consideration of long term owner/occupier needs ie knock down rebuild in view of aging issues and living in a more suitable home for ageing owners. As Govt; wants the elderly to stay in there home and for many like myself I have been planning this for 20 years. To stay on my property site. and should not be disadvantage re the proposed new changes (perhaps there should be a clause re this issue added to any change). Additionally, re streetscape I would like to see traffic calming/restriction (greened kerbs) restrictions to oversize vehicles/caravans etc being parked on street obstructing the non-owners property to streetscape view/light/security/safety and the overall enjoyment of environment/surounds ( some areas are becoming a caravan/ truck storage area ). James street is the only entry point from Gordon Ave; and has become a noisy thoroughfare 2Agree/7 consideration to making this entry a Cul-de-sac/other?</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>This is a very significant collection of diverse housing styles and I support its addition to the HCAs. It is most important to gain the approval of the residents/owners of the housing within the area and build their awareness of the plan and its strictures in regard to development and renovation before declaring the new HCA. All efforts should be made to link the HCA smoothly to the Beaumont Street precinct by way of signage, street furniture and vegetation.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>The heritage area should be extended to include Dumaresq Street West of Gordon Avenue.</td>
</tr>
</tbody>
</table>
Proposed Glebe Road - The Junction cottages

Profile

Just 17 people made comment on the proposed changes to the Glebe Road The Junction cottages. This is a very small sample size and care must be taken when reviewing this data. For this reason the data is reported in terms of numbers of people rather than as percentages.

Just 3 of the 17 were owners, and 3 of the 17 were residents; one owner was a resident and two were landlords. None were renters and none were Business Owners.

Figure 21: Profile of those responding to proposed changes to Glebe Road/ The Junction cottages

![Profile of those responding to proposed changes to Glebe Road/ The Junction cottages](chart_image)
The issues

Those commenting on the proposed changes to the Glebe Road The Junction cottages were asked to indicate the strength of their agreement with two issues. The results can be seen below in figure 22.

**Figure 22: Extent of agreement with proposed changes to Glebe Road/ The Junction cottages**

<table>
<thead>
<tr>
<th>Extent of agreement with proposed changes to Glebe Road, The Junction cottages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue 1: Create a new HCA for the area</td>
</tr>
<tr>
<td>Strongly disagree</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>Issue 2: Updates</td>
</tr>
<tr>
<td>Strongly disagree</td>
</tr>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

**Issue 1: A new heritage conservation area should be established to include all of the properties 55 to 75 Glebe Road, The Junction**

The majority (14 of 17 people) were in agreement with this proposed change.

**Issue 2: A locality specific set of development guidelines should be prepared to protect the single storey character of the potential new HCA**

The majority (14 of 17 people) were in agreement with this proposed change.

**Figure 23: Further comments made on the proposed Glebe Road The Junction cottages**

<table>
<thead>
<tr>
<th>Response to Issue 1</th>
<th>Response to Issue 2</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>Strongly disagree</td>
<td>The heritage nature of this area has already been compromised by the construction of a 2nd (modern) dwelling at the rear of 2 of the 10 or 11 properties that would be affected by this proposed conservation area. The proposed area is also quite small &amp; isolated, in that it is essentially enclosed on Neither sides by The Junction's existing retail &amp; commercial development. This development already detracts from the overall visual appeal of the current streetscape.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Approximately 5 years ago an appeal was denied for a development plan for 55 Glebe Rd by the Minister for Planning and Infivroment. The court considered that the facades of the cottages 55 to 75 were mostly unchanged and should be maintained as an example of the original village architecture still in tact.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>The Junction Village is a rather unique 'village' style shopping precinct. It is bounded by residential properties some of which have valuable heritage character, e.g. in Corlette St and in Glebe Rd. For the 'village' character to be maintained there must be a clear boundary between commercial and residential and having residential right up close to shops etc helps retain this character. The strip of single storey character houses on the south side of Glebe road provides and interesting neat boundary to the 'village'. Glebe Rd is an entry thoroughfare to inner beachside Newcastle and as such its character needs to be preserved where possible.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>These are an outstanding group of well maintained garden cottages that add to the character of The Junction. Ensure that all owners are fully aware of the proposal and its implications for maintenance and renovation before declaring the heritage area.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>These properties warrant a heritage classification under a new HCA. With one exception, the character of the cottages between Robinsons Real Estate &amp; Arrivederci Restaurant is intact. The owners have respected the character &amp; streetscape of these cottages &amp; have kept them in a very well maintained state. Previously the residents strongly supported the retention of these homes &amp; opposed the proposed demolition of one of the cottages for redevelopment. Council's decision to reject the proposed demolition &amp; redevelopment &amp; to preserve the character of this small group of cottages was supported by an external judgement by a Heritage Consultant. It may be possible to sympathetically build into the existing roof structures, set back from the streetscape as has happened with some dwellings in the Hamilton South Garden Suburb HCA. As long as the single story character is preserved with adequate set back within the roof line to preserve the heritage character of the homes then it may be suitable. Similarly it may be possible for garage roof structures to be extended to allow extra development within the roof space if the change is sympathetic to the character of the street. Such possibilities would need proper study &amp; consideration so that the heritage character would not be adversely impacted.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lovely group of old cottages most of which are still in good condition if not exactly in an original state. Worthy of protection in the inner city.</td>
<td></td>
</tr>
</tbody>
</table>
Newcastle East

Profile

Just 17 people made comment on the proposed changes to the Newcastle East HCA. This is a very small sample size and care must be taken when reviewing this data. For this reason the data is reported in terms of numbers of people rather than as percentages.

Six of the 17 were owners, and these 6 were also residents. None were renters and none were Business Owners.

Figure 24: Profile of those responding to proposed changes to Newcastle East HCA.

Profile of those responding to proposed changes to Newcastle East HCA

- Owner
- Renter
- Other
- Resident
- Business Owner
- Other

Number of respondents

The issues

Participants were asked to comment on one issue:

*Update to Heritage technical manual: The Heritage Technical Manual to be amended with revised statement of significance and new contributory buildings map.*

Figure 25: Comments made on the Newcastle East proposal

<table>
<thead>
<tr>
<th>Comment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Newcastle station should be included and protected</td>
<td></td>
</tr>
<tr>
<td>Many of the buildings do not have heritage value. I question the value of grouping buildings by area. The cost/inconvenience of compliance can be prohibitive to real development</td>
<td></td>
</tr>
<tr>
<td>I support the amendment of the Heritage Technical Manual to include a revised statement of significance and new contributory buildings map for the Newcastle East Heritage Conservation Area.</td>
<td></td>
</tr>
</tbody>
</table>
Newcastle East is becoming a vibrant and character-filled part of the city. The streetscapes are looking great and I notice that more and more buildings are being done up and restored and adding to the heritage value and interest of the precinct.

See previous comments

Should include Newcastle Station area, Watt St both sides up to James Flether Hospital Area, Fletcher park out to Nobbys Headland

For all of the Areas

Zoning was not within the scope of this review, however Council recognises the need to analyse the zones in HCAs. With this in mind, all participants were asked to indicate the extent of their agreement with a further two issues:

Figure 26: Extent of agreement zoning proposals

**Extent of agreement to zoning proposals**

**Issue 1:** Council should examine the applicable land use zones and zone objectives in each HCA

60% of participants agreed (agree or strongly agree) that Council should examine the applicable land use zones and zone objectives in each HCA. 16% indicated their disagreement with this proposal.

**Issue 2:** Analysis of the zones should be a high priority

58% of participants agreed (agree or strongly agree) that the analysis of the zones should be a high priority. 17% disagreed with this proposal.

*Issue 1: That Council should examine the applicable land use zones and zone objectives in each HCA*

60% of participants agreed (agree or strongly agree) that Council should examine the applicable land use zones and zone objectives in each HCA. 16% indicated their disagreement with this proposal.

*Issue 2: That analysis of the zones should be high priority.*

58% of participants agreed (agree or strongly agree) that the analysis of the zones should be a high priority. 17% disagreed with this proposal.
Figure 27: Further comments made on the proposed Glebe Road The Junction cottages

<table>
<thead>
<tr>
<th>Response to Issue 1</th>
<th>Response to Issue 2</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>Quite possibly, but I'm not sure. Certainly the lot sizes may require a refactoring of types of dwellings and changes to dwellings that can take place, as well, advances in construction and contemporary technologies that can overcome previously difficult to solve problems should be considered as part of this (eg. noise attenuation/dampening, insulation, construction materials allowing more glass for natural light etc.).</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Strongly disagree</td>
<td>The zones have been reviewed in recent years and reflect a high density area. They also comply with the SAFE criteria. The objective of the r3 zone reflects cooks hills high density nature. Outside of the city centre it is one of the LGAs highest density suburbs. See housing paper to LPS. If design, in particular height, is an issue that is a design issue- not a zone issue. Hense why heights and fsr now stay alone in the LEP. They should be captured via design controls. Cooks Hill reflects a true r3 zone. Should be be anything less it would mean that the zones are not being applied consistently and cause much confusion. If height is the issue then height should be addressed. I agree that the character of a HCA should be retained but this is not the correct planning mechanism. Perhaps advice from the department should be sort on using the zones that way.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>There seems to be a contradiction between having a HCA and then it is zoned for medium density. They do not work together.</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Strongly disagree</td>
<td>the above response is provided that the reviews of zones are consistent with protecting heritage value</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Strongly disagree</td>
<td>I believe that most of the land is zoned residential, why change?</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Zoning is of vital importance if the heritage significance of the character and streetscape of the heritage conservation areas is to be maintained. Zoning should reflect the existing built environment within the Heritage Conservation Areas. The northern length of Denison Street Hamilton is a good example of the way in which inappropriate zoning has ruined the ambience and amenity of a once-popular residential area with high quality housing stock, so discouraging inner-city living. This will be the eventual fate of all Heritage Conservation Areas if zonings do not reflect the existing character.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>lets not ruin historic end of Newcastle with too much high rise and boxing in of open spaces. This does not align with the history and gentrification of Newcastle and Newcastle East particularly. Short term gain. Let's</td>
</tr>
</tbody>
</table>
More and more residential dwellings are being purchased within HCAs and converted into businesses such as specialist medical practitioner rooms even though there are ample vacant buildings in commercially zoned Hunter Street. The problem with this is that they often remove grass and gardens and replace with concrete car parks. Having on-site parking is a major contributing factor in the choice of an inner city residually zoned dwelling over a commercially zoned one where parking limitations and ease of access are less attractive to patients.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly agree</th>
<th>The zoning should be maintained as residential with single residential properties. Multi storey apartments should be not allowed in the heritage areas, even dual occupancy on a single block as has been allowed in the past.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neither</td>
<td>Neither</td>
<td>Not sure what this question means? however had to answer to move on.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>Residential and commercial zones should be kept separate and multi-storey developments have no place within a HCA.</td>
</tr>
<tr>
<td>Agree</td>
<td>Agree</td>
<td>So long as Council abides by the significant heritage areas that are identified by such examinations and strongly protect the heritage fabric and integrity.</td>
</tr>
<tr>
<td>Neither</td>
<td>Neither</td>
<td>If zoning was to be reviewed and any changes proposed would such changes be presented to residents for comment?</td>
</tr>
<tr>
<td>Agree</td>
<td>Agree</td>
<td>R3 (medium density) development is not appropriate in a Heritage Conservation area</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>No changes to current zoning in HCA areas.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>There is a definite conflict between the intention of the Hamilton South Garden Suburb area and the change in zoning that occurred. There should be NO medium residential zoning.</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>See previous comments</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
<td>This must be addressed now before the RMS comes in and builds another arterial route ruining our heritage in that area for ever</td>
</tr>
<tr>
<td>Agree</td>
<td>Agree</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>There needs to be regular contact between Council and the residents of HCAs to ensure that they are aware of the design principles and physical characteristics that contribute to the heritage status of their suburb or location. Unless this is done, there will continue to be development proposals that conflict with the goals of maintaining the heritage fabric of the HCAs. In the case of Hamilton South HCA, the intrusion of some second floor rooflines into the streetscape has impacted on the heritage quality of the location. There is a need for all Council Officers and any professional involved in planning approvals to be aware and involved in upholding the planning provisions underpinning the HVAs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each Heritage Conservation Area has its own individual characteristics which is not covered by a one size fits all approach. The above survey points should be high priority to protect the heritage fabric in each different zone and to provide guidance &amp; certainty for individual owners, prospective owners, Council and the wider community.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is imperative that the low density zoning in the conservation area be retained. Demolition in all the inner suburbs surrounding the Hamilton South Heritage Area is proceeding at an alarming rate. Replacement buildings of blue board and cocked hat flat roofs is destroying the character of the original suburbs. This trend makes the preservation of the Hamilton South Heritage Conservation Area even more critical in retaining the ambience of the inner city.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NA</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>If more out of character developments are allowed, the heritage character of the whole area will be lost. Considering the closeness to Tudor and Parry St and the St Francis Xavier high school and TAFE, more over or poor development in this area may well lead to the creation of an inner city ghetto, losing the current feeling of a well kept and connected community.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do Pull Down or removal Cavet should be Placed on all Items in the HCA area</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whatever outcome of the zoning examination it is extremely important to maintain and even extend (where possible) the open space availability. The health outcomes of residents is enhanced by the availability of open space. Once open space is lost it will never be replaced. Cities throughout the world are often recommended to visitors because of the open spaces that are available.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction in Newcastle was 'fast tracked' by the previous Council and seemingly at the expense of future sustainable town planning. It's time to take a good look at just how many apartments Newcastle can reasonably accommodate and prevent this sprawl from impinging on neighbouring residential zones.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would potentially agree but I would need to understand the implications of this proposal. What are the land</td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Agree</td>
<td>Agree</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Neither</td>
<td>Neither</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>
Additional comments

At the close of the survey, participants were asked if there were any further comments they would like to make. All comments are shown in Appendix II.

Where to from here

- Identify areas where this feedback can be incorporated into the final document.
Heritage Survey: Public Exhibition

The Heritage Conservation Area report presents the findings of a review of five heritage conservation areas (hereafter referred to as HCAs) across the Newcastle Local Government Area.

The purpose of the review was to;

- define the current heritage significance of each area,
- produce desired future character statements,
- assess the appropriateness of boundaries,
- examine the development control framework and the relevant planning context,
- identify what items contribute to or detract from each area,
- understand what the community values about these areas.
- investigate the potential for new HCAs or extensions to existing HCAs.

The draft report is currently on public exhibition to gain community feedback. This survey looks at the particular proposals for each HCA. Your feedback will be considered in the development of the final draft which will go to Council for review and then put on public exhibition.

Here are a few terms to keep in mind while leaving your feedback...

**Contributory:** a building or feature that positively reinforces or reflects the character or the heritage significance of the HCA

**Non-contributory:** a building or feature that detracts from the character or the heritage significance of the HCA

**LEP:** Local Environmental Plan - the statutory landuse planning instrument


**HCA:** Heritage Conservation Area
Your details will be used for nothing further than ensuring that the survey is not compromised with multiple completions. All data provided will be sorted by heritage conservation area.

Name: __________________________

Address: __________________________

☐ Prefer not to disclose

Which areas do you wish to make comment on? (multiple response permitted)

☐ Cooks Hill
☐ Hamilton South Garden Suburb
☐ Hamilton Beaumont Street
☐ The Hill
☐ Newcastle East
☐ Proposed Hamilton residential area
☐ Proposed Glebe Road cottages

The survey is divided into sections for each of the above 7 areas to allow comment to be made per area.

Please complete only the sections corresponding to those you have selected above.

Finally there is a section for all survey participants - please complete this section in addition to the area-specific sections.

THANK YOU
Cooks Hill
For more information please refer to Chapter Two of the Review of Heritage Conservation Areas draft report.

Do you own or rent property in the Cooks Hill HCA?

- Own
- Rent
- Other:

Property type
Select all that apply.

- Resident
- Business owner
- Other:

Proposed changes to Cooks Hill Heritage Conservation Area:

- **Expand the HCA area:** The HCA review has assessed an area to the east of the current Cooks Hill boundaries (around Anzac Parade, Bingle and High Streets) and found this area to have heritage significance.

- **Removal from the HCA area:** The review found a part of Darby Street between Parry and Tooke Streets to be so compromised it should be excluded from the HCA.
To what extent do you agree or disagree with the following…

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not sure/not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Cooks Hill HCA should be extended to include portions of Anzac and Kitchener Parades.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Darby Street, between Parry and Tooke Street, should be removed from the heritage conservation area.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Do you have any further comments to make about these recommendations?
Hamilton South Garden Suburb

For more information please refer to Chapter three of the Review of Heritage Conservation Areas draft report.

Do you own or rent property in the Hamilton South Garden Suburb HCA?

☐ Own
☐ Rent
☐ Other:

Property type

Select all that apply.

☐ Resident
☐ Business owner
☐ Other:

Proposed changes to Hamilton South Garden Suburb Heritage Conservation Area:

- **Removal from the HCA area**: Change the boundary at Glebe Road - Heritage significance is compromised by inappropriate development in some sections of Glebe Road.

- **Expand the HCA area**: There is merit in extending the boundary of the HCA to include parts of Denison Street, Parkway Avenue and Ada Street. These streets have been identified to have local heritage significance on historic and aesthetic grounds, with a number of contributory items identified.

- **Change to LEP**: Consideration of listing Parkway Avenue as a heritage item in the LEP. This is proposed to protect the significant physical and visual presence of Parkway Avenue to minimise any loss of intactness or erosion of this landscape and roadway feature.

- **Update to Heritage technical manual**: Resources should be obtained to produce specific updated guidelines, including enforceable envelope controls, for inclusion in the Heritage Technical Manual. This aims to prevent undesirable trends that could erode the significance of the HCA if no action is taken to address the issue.
To what extent do you agree or disagree with the following…

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not sure/not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>The removal of part of Glebe Road from the boundary of Hamilton South Garden Suburb HCA</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The inclusion of a part of Denison Street and Ada Street in Hamilton East in the Hamilton South Garden Suburb</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Parkway Avenue should be included as a landscape heritage item in Schedule 5 of the Newcastle LEP</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Specific guidelines for alterations and additions to be prepared and included in the Heritage Technical Manual</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Do you have any further comments to make about these recommendations?
Hamilton Business Centre Heritage Conservation Areas

For more information please refer to Chapter four of the Review of Heritage Conservation Areas draft report.

Do you own or rent property in the Hamilton Business Centre HCA?

☐ Own
☐ Rent
☐ Other:

Property type

Select all that apply.

☐ Resident
☐ Business owner
☐ Other:

Proposed changes to Hamilton Business Centre Heritage Conservation Area:

- Heritage significance is compromised in this HCA by infill development and loss of intactness overall.
- **Consideration of potential new heritage items in the Newcastle LEP:** Undertake heritage assessment of sandstone kerb and gutters in Beaumont Street for possible consideration as a heritage item of local significance.
To what extent do you agree or disagree with the following…

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not sure/not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton Beaumont Street should be delisted as a HCA</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The sandstone kerb and gutters in Beaumont Street should be heritage listed.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Do you have any further comments to make about these recommendations?
The Hill

For more information please refer to Chapter five of the Review of Heritage Conservation Areas draft report.

Do you own or rent property in The Hill HCA?

- Own
- Rent
- Other:

Property type

Select all that apply.

- Resident
- Business owner
- Other:

Proposed changes to The Hill Heritage Conservation Area:

- **Expand the HCA area**: The HCA review has assessed an area of Federation and Inter War houses at Anzac/ Kitchener Parade, Bingle and High Streets. This review has re-assessed the area and finds certain streets are considered worthy of statutory listing as HCA.
To what extent do you agree or disagree with the following…

<table>
<thead>
<tr>
<th>The boundary of The Hill HCA should be extended to include parts of Kitchener Parade, Anzac, Bingle and High Streets.</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not sure/not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Do you have any further comments to make about these recommendations?


Proposed Hamilton Residential Area

For more information please refer to Chapter seven of the Review of Heritage Conservation Areas draft report.

Do you own or rent property in the Proposed Hamilton Residential Area HCA?

☐ Own
☐ Rent
☐ Other:

Property type

Select all that apply.

☐ Resident
☐ Business owner
☐ Other:

Proposed changes to the Hamilton Residential Heritage Conservation Area:

- **Expand the HCA area**: The residential precinct immediately east of the Beaumont St Business Area HCA is an intact precinct of Victorian and early Federation period houses. This review identified numerous contributory buildings and street trees of heritage value and has assessed this area as being of local heritage significance.

- **Consideration of potential new heritage items in the Newcastle LEP**: Undertake heritage assessment of properties 32, 34 and 18 Gordon Avenue Hamilton as heritage items of local significance.
To what extent do you agree or disagree with the following…

<table>
<thead>
<tr>
<th>The proposed Hamilton residential area should be included in the Newcastle LEP as a Heritage Conservation Area</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not sure/not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The heritage significance of properties at 32, 34 and 18 Gordon Avenue Hamilton should be assessed to determine if they should be listed as heritage items in the Newcastle LEP.</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not sure/not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Do you have any further comments to make about these recommendations?
Proposed Glebe Road The Junction cottages

For more information please refer to Chapter seven of the Review of Heritage Conservation Areas draft report.

Do you own or rent property in the Proposed Glebe Road The Junction cottages HCA?

☐ Own
☐ Rent
☐ Other:

Property type

Select all that apply.

☐ Resident
☐ Business owner
☐ Other:

Proposed changes to the Glebe Road The Junction Cottages Heritage Conservation Area:

- **Create a new HCA for the area:** Glebe Road group (55-75 Glebe Road) has sufficient heritage significance to justify conservation. This would involve the making of a heritage conservation area.
- **Updates:** Locality specific development controls would need to be produced to facilitate the preservation of the dwellings in this area.
To what extent do you agree or disagree with the following…

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not sure/not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>A new heritage conservation area should be established to include all of the properties 55 to 75 Glebe Road, The Junction.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>A locality specific set of development guidelines should be prepared to protect the single storey character of the potential new HCA.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Do you have any further comments to make about these recommendations?
Newcastle East

Do you own or rent property in the Newcastle East HCA?

☐ Own
☐ Rent
☐ Other:

Property type

Select all that apply.

☐ Resident
☐ Business owner
☐ Other:

Proposed Updates:

**Update to Heritage technical manual:** The Heritage Technical Manual to be amended with revised statement of significance and new contributory buildings map.
Do you have any further comments to make about these recommendations?
For all of the Areas

Proposals:

- **Further review:** Zoning was not within the scope of this review, however the need to analyse the zones in HCAs is recognised.

To what extent do you agree or disagree with the following…

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not sure/not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>That Council should examine the applicable land use zones and zone objectives in each HCA</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>That analysis of the zones should be high priority.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Do you have any further comments to make about these recommendations?


Do you have any additional comments?


Appendix II - Verbatim comments
**Property_type_Other:. Do you own or rent property in the Cooks Hill Heritage Conservation Area?**

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing provided</td>
<td>1</td>
</tr>
<tr>
<td>I am interested in this area</td>
<td>1</td>
</tr>
<tr>
<td>LGA ratepayer and resident</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>1</td>
</tr>
<tr>
<td>neither</td>
<td>1</td>
</tr>
<tr>
<td>no</td>
<td>1</td>
</tr>
<tr>
<td>non resident</td>
<td>1</td>
</tr>
<tr>
<td>Parkway Ave resident</td>
<td>1</td>
</tr>
<tr>
<td>user</td>
<td>1</td>
</tr>
</tbody>
</table>

**Property_type_2_Other.: Are you a resident or business owner?**

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>2</td>
</tr>
<tr>
<td>Both</td>
<td>1</td>
</tr>
<tr>
<td>I am interested in this area</td>
<td>1</td>
</tr>
<tr>
<td>Landlord</td>
<td>1</td>
</tr>
<tr>
<td>LGA ratepayer and resident</td>
<td>1</td>
</tr>
<tr>
<td>neither</td>
<td>1</td>
</tr>
<tr>
<td>no</td>
<td>1</td>
</tr>
<tr>
<td>own rental property</td>
<td>1</td>
</tr>
<tr>
<td>visitor</td>
<td>1</td>
</tr>
</tbody>
</table>

**OE_recommendations. Do you have any further comments to make about these recommendations?**

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any future proposals for development of the area on Darby Street between Parry and Tooke Street should fit in with the heritage conservation area. One has to question how these developments were</td>
<td>1</td>
</tr>
</tbody>
</table>
approved with the Cooks Hill Conservation Area in place!!

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a resident of parkway ave for the past 16 years I value the quiet nature of the</td>
<td></td>
</tr>
<tr>
<td>area. The last thing I want is increased traffic flow along the street this will</td>
<td></td>
</tr>
<tr>
<td>impact our lifestyle and property values.</td>
<td>1</td>
</tr>
<tr>
<td>I believe that the northern side of Nesca Pde between Brooks St and Kitchener Pde</td>
<td></td>
</tr>
<tr>
<td>should also be included. This strip of the street until very recently was a strip</td>
<td></td>
</tr>
<tr>
<td>of significant character - weatherboard and brick bungalows from the early 20th</td>
<td></td>
</tr>
<tr>
<td>century. It was an attractive streetscape with real heritage appeal and interest.</td>
<td></td>
</tr>
<tr>
<td>In the last two years two properties have been demolished and very modern houses</td>
<td></td>
</tr>
<tr>
<td>that have been designed with no consideration for the existing streetscape have</td>
<td></td>
</tr>
<tr>
<td>been built. It is important that this trend does not continue in the street.</td>
<td>1</td>
</tr>
<tr>
<td>I think in the case of the Darby St/area , with the exclusion of St John's Church</td>
<td></td>
</tr>
<tr>
<td>etc is developed with no particular advantage to the conservation area any more.</td>
<td></td>
</tr>
<tr>
<td>I do think that the Anzac Pde and Kitchener Pde should be included.</td>
<td>1</td>
</tr>
<tr>
<td>Nil</td>
<td>1</td>
</tr>
<tr>
<td>No. No heritage area should be reduced. That just plays into the hands of the</td>
<td></td>
</tr>
<tr>
<td>unscrupulous.</td>
<td>1</td>
</tr>
<tr>
<td>The developments approved on Darby Street compromise the HCA by their bulk and</td>
<td></td>
</tr>
<tr>
<td>their impact on on street parking in the vicinity.In my view changes at the edge</td>
<td></td>
</tr>
<tr>
<td>of HCAs contribute to the erosion of streetscape values and add pressure on</td>
<td></td>
</tr>
<tr>
<td>Council to enable changes within the HCA itself.</td>
<td>1</td>
</tr>
<tr>
<td>The HCA between Centennial park and Darby St was in reasonable shape before the</td>
<td></td>
</tr>
<tr>
<td>Soviet era inspired concrete bomb shelter was recently erected behind 139-143</td>
<td></td>
</tr>
<tr>
<td>Dawson st. Either pull it down or cover it with something like vertical gardens</td>
<td></td>
</tr>
<tr>
<td>to make it conform to the HCA that it was supposed to be subject to. If these</td>
<td></td>
</tr>
<tr>
<td>are not options then :</td>
<td></td>
</tr>
<tr>
<td>1 Someone's nuts should be on the line for permitting the travesty of a future</td>
<td></td>
</tr>
<tr>
<td>slum nucleus to be built the way it was</td>
<td></td>
</tr>
<tr>
<td>2 Excise the Dawson st lots whose heritage values have been seriously degraded</td>
<td></td>
</tr>
<tr>
<td>by that development from the HCA, as well as the Darby St section.</td>
<td></td>
</tr>
<tr>
<td>the inclusion of this area will only cause unnecessary restriction and more</td>
<td></td>
</tr>
<tr>
<td>paper work to complete renovations or repairs to my properties. it will also</td>
<td></td>
</tr>
<tr>
<td>risk a reduction in the value of my properties with no consequent benefit</td>
<td></td>
</tr>
<tr>
<td>the surrounding cooks hill area has ample HCA, agree with the decision to</td>
<td></td>
</tr>
<tr>
<td>remove the main street CA and let businesses adapt to modern trends and growth</td>
<td>1</td>
</tr>
</tbody>
</table>

<p>| HS_Property_type_Other: Do you own or rent property in the Hamilton South Garden |       |
| Suburb Heritage Conservation Area?                                                |       |
| Verbatim Responses                                                               | Total |
| Own property On Parkway ave                                                      | 1     |
| considering owning                                                               | 1     |</p>
<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visitor</td>
<td>2</td>
</tr>
<tr>
<td>considering residing</td>
<td>1</td>
</tr>
<tr>
<td>I am interested in the area</td>
<td>1</td>
</tr>
<tr>
<td>Invested party</td>
<td>1</td>
</tr>
<tr>
<td>Landlord</td>
<td>1</td>
</tr>
<tr>
<td>LGA resident and ratepayer</td>
<td>1</td>
</tr>
<tr>
<td>local resident</td>
<td>1</td>
</tr>
<tr>
<td>neither</td>
<td>1</td>
</tr>
<tr>
<td>reside the junction</td>
<td>1</td>
</tr>
<tr>
<td>resident</td>
<td>1</td>
</tr>
</tbody>
</table>

OE_recommendationsCopy1. Do you have any further comments to make about these recommendations?

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
</table>

**A once beautiful Newcastle icon is being transformed into a high density raceway.**

Modern urban design thinking strongly suggests the car is not the future and yet we continue to cater to this.

Time to think back to what is beauty and how to increase it or at least maintain what we have.

After listening to the presentation from council, I still can't understand why an area with contributing houses would be removed.

My concerns are as follows Parking, Storm water, flooding, Traffic management and the effect on Cram street, street scape. I am strongly against removing the Glebe rd area from the heritage area.

All building approval should adhere to strict heritage building guidelines in order to preserve heritage areas. The beautiful streetscape of Parkway Avenue should be preserved as it is one aspect of Newcastle Heritage that defines Newcastle as the city that it is.

As a resident of Parkway Avenue I strongly object to any changes that would bring additional traffic to this street or reduce the aesthetic of the current width of the medium strip and the beauty of existing trees. In fact I would promote additional streetscaping involving additional tree plantings and gardens to enhance this avenue towards its original design - as a generous green corridor. Turning it into a busier road would have a significant and detrimental impacts on residents including increased noise levels, loss of aesthetic, negative impact on heritage areas either side of Parkway Ave, higher risk of road accidents (car and pedestrian) and a downgrade in the sense of community as residents would be less likely to spend time in their front yards/verges if it were a busy road. These negatives would also reduce property values which is significant to me as I moved here 4 years ago to take advantage of the current environment and streetscape. I would therefore be disadvantaged be losing these advantages and losing property value. I strongly object to making Parkway Ave a busier street and support it being listed on the LEP.

**AS a resident of the Garden Suburb my whole life, I feel it would be detrimental to reduce the size of the median strip in Parkway Avenue. Having grown up in Parkway Avenue and having now bought in Hebburn street, part of the appeal to this area was the trees and parks, not seen like this anywhere else in Newcastle.**

My objection to the proposed boundary changes are as follows.
1. The proposed boundary changes will lead to rezoning and redevelopment in Glebe Road which will allow buildings of much greater height and density. This will be totally out of character with the existing homes in the HCA.

2. High buildings will overview out homes and outdoor areas, this will lead to a loss of privacy in the rear of our homes.

3. The streetscape as seen from the street and homes in Cram Street and National Park Street will be adversely impacted by increased heights and densities.

4. Increased densities will lead to drainage and flooding problems in Cram Street. Glebe Road and Turnbull Street drain into Cram Street due to their higher elevation. Cram Street has a very long history of flooding in heavy rain.

5. Parking will be increased in Cram Street due to increased densities. Parking is restricted in Glebe Road so excess parking from new residents and visitors will overflow into Cram Street and National Park Street.

6. The above detrimental effects will make this area much less appealing to home owners. Downgrading of our amenity and homes will impact on the integrity of this part of the HCA. This will flow on to other parts of the HCA over time.

Do not alter Parkway Ave or its median strip at all. We are under strict rules about what alterations, extensions, fences and even garage doors that we can have in this heritage area so under NO circumstances can the heritage streetscape of Parkway Ave be altered as it is the main feature of this heritage area.

Do not widen Parkway Avenue. I live in Parkway Ave, have young children and do not want any more traffic along this road. I bought here because it is not a major road and changing this will impact on our enjoyment of living here and would negatively impact property values.

Do not wish to see Parkway Avenue Hamilton changed in any manner whatsoever. The median strip is a delightful and essential part of Hamilton and surrounds.

Essential to maintain landscape heritage of Parkway Ave. (Traffic control needed ++)

Every city must have an identity and an integral part of its identity shows a blend of valued heritage areas and the need to be progressive. A progressive approach is to preserve the integrity of heritage areas and manage the somewhat”sneaky” erosion of valuable heritage areas.
As a community we need to ensure the proposed boundaries of heritage areas are managed sensitively.

I live in the Hamilton South Garden Suburb precinct and find the lack of traffic control to be a major concern to the integrity and amenity of this highly regarded residential area.

I recently hosted a visitor from Minnesota USA who remarked about the attractiveness of the Norfolk Pine lined Parkway Avenue.

Former Town Planner advised me personally that he had personally sought through detailed analysis that the grassed verged separating Parkway Avenue and the Norfolk Island Tree species had been gazetted by the NSW Government.

Furthermore, this area should and does fall within the BURRA charter. The trees and the lineal form of Parkway Avenue were designed to provide clear lineal indicators to other significant landmarks including the city's Obelisk and provide directions to visitors/tourists to the CBD and the harbour foreshore area. It is also a significant part of the historical drive that leads to our beach areas.

It is interesting to note that a Heritage Architect is to be commissioned to aid Council in the decision making process, critically relevant to that should be a parallel commission of a reputable Heritage Landscape Architect that Council deemed important enough to ask me as principal designer for Newcastle Christ Church Cathedral to seek such expert (Heritage Landscape Architect) to determine our DA and CC application for the cathedral.

The area is classed as a 'Garden Suburb' the issues relating to Landscape and existing hardscape/softscapes plantings trees and Heritage impact DO NOT fall within the ambit of a General Heritage Architect - that is why there is two separate disciplines in Architecture. Please involve the appropriate expert for Heritage Garden issues that incorporate the important protection of this highly heritage significant grassed/tree verge separating Parkway Avenue Hamilton South.

I agree with the Review of Heritage Conservation Areas Draft Report in that Parkway Avenue should be listed as a heritage item in Newcastle LEP 2012 because it is a fundamental surviving element of Sulman’s Garden Suburb design. The Avenue with its generous median and plantings of Norfolk pines are central to the suburb’s street pattern and should be protected from potential changes to street design and functionality. Parkway Avenue is the highest in the order of streets in Hamilton South and should be left intact to protect the visible evidence of Newcastle’s efforts to grow out of its coal mining town beginnings into the diverse City it is today. The Garden Suburb principles that the Avenue exemplifies, contributes to the City’s prosperity and generosity.

I am very please and supportive that the Council is adopting a positive and proactive to heritage planning and guidelines.

I don't believe that the fact that inappropriate development has occurred in Glebe road is a reason to move the boundary. This would place at risk what we see from our back yard. (3 Cram st). Leaving it as is maintains a logical boundary at one side Glebe road and may lead to future sympathetic development. I also think it's a backward step to water down the rules that have been in place for 20 years.
I haven't commented on the heritage technical manual but do think that any clarification between "guidelines" and rules is probably a good thing. We were able to do what I believe was a suitable extension without issue.

I would be very happy to discuss my views further if required. Thanks you.

I don't want to see Parkway avenue altered in any way. Reducing the size of the median strip would spoil the beauty of the avenue and rob the area of its distinctive character. I can't believe that this would even be considered as it is such a long-standing and beloved part of Hamilton South and surrounds.

I have been a resident of this area for the past 6 years. This is a stunning original area of Hamilton with houses dating back well over 100 years. The loss of several houses of this era has recently occurred in Dennison which saw well over 50 objections to this loss occur. This demonstrates the communities love of our area and its heritage value. Our block in particular is one of the last remaining intact historic blocks of Parkway Ave. Our houses have histories with the beginning of the AA Company in this area. Preserving this history only adds to the history of our community as a whole.

I have lived in Parkway Avenue for over 50 years and throughout that time it has been a beautiful avenue in the true sense of the word forming a centerpiece for what is now the garden suburb. Even though the council no longer maintains the many garden beds which are now buried under grass or full of dying hibiscus it still forms a graceful corridor from the centre of town to the beach. This tree-lined avenue and its maintenance in its current form (single lane carriageway) is vital if this area is to reflect its name as the Garden Suburb. Beyond this it is a unique and beautiful feature within the city, one we should care for and protect in its current form.

I strongly appose any change to the median in Parkway Ave. Parkway Avenue has been the main town-planning feature of this area since my family first moved here in 1957. Most of the houses are in close-to-original prospect from what I can remember as a child way back then. The main part of this is the very wide gorgeous green median that runs the full length which even looks better without the oleandas that were there in the 1950s. Any reduction in the size of the median for things like turning lanes at Stewart/Parkway lights can be done just as well by re-routing the bicycle route to quieter streets like Jenner Parade to cross Stewart Ave at the pedestrian lights at Alexander St and thereby have a full 2 lanes of traffic at the Stewart/Parkway lights (we live on that corner). The cycleway can then follow Alexander and Beaumont to the Racecourse and Dumasresq St. Any proposal for light rail along Parkway is crazy - if trams come south they should go to The Junction (servicing Bar Beach) and on to Merewether or Dixon Park Beaches and then back along Gordon Avenue and Denison St to Wickham.

I strongly believe that Parkway Avenue should be left as is, no change should be made to the current size of the median strip.

If the area on Glebe road was to be removed and high density accommodation built on the site I am concerned about Stormwater drainage from those properties to those within the Heritage area, shading of dwellings in Cram Street, increased traffic and noise to dwellings in Cram Street, and the impact on the character and setting of the streetscape looking towards the south side of Cram Street. There is also concern that any new buildings on the Glebe road site would not be in keeping
with the building form, scale, roof scale, and in keeping with other notable features of the area.

| In these areas the existing streetscape ought to be maintained. There are other, more appropriate, areas suitable for development. | 1 |
| Isn't the Ada St section where they've just knocked down 4 houses?? | 1 |
| Its vital Parkway Ave remains an important feature of the Hamilton South Garden Suburb and this must be reflected by the inclusion in the LEP as an item of significant value to Heritage conservation plan | 1 |
| Just that I think it is important to protect the heritage value of the area and reduce the impact of extensions. | 1 |
| Newcastle has so few beautiful avenues, why destroy one now. Its a wonderful access area to some of Newcastle's prime attractions such as the beach, the ANZAC memorial walk and King Edward Park. | 1 |
| Not only should Parkway avenue be included in the Newcastle LEP, it should also be brought back to how it was in its early years with the inclusion of gardens on the central median strip. After all, it is classified as the 'Garden Suburb' of Newcastle. Lets show the world what can be done. Maybe this can be done with the NCC working close with the property owners, and possibly getting them involved in some of the streetscape/garden upkeep. The Avenue also has the potential to become one of Newcastle's premier Christmas attraction by installing lighting in the Norfolk Island pines from Hamilton to Bar Beach. Imagine the 'sea of lights' as you drive down Parkway Avenue at Christmas. Again this could be done by the NCC, with the help of the residents of the area. | 1 |
| Parkway Ave is a significant landmark in Newcastle and should be protected | 1 |
| Parkway Ave is and must remain as a landscape heritage item in the LEP it holds the Hamilton South Garden Suburb together and establishes this area with beauty and must remain for all citizens of Newcastle and surrounds. The key importance is the Norfolk pines and the wide grassed strip to define this lovely garden strip. Without Parkway Avenue remaining as is there would be no defined Hamilton South Garden Suburb heritage Area. please preserve this wonderful avenue as it has historically been intended it holds such significant value to the Heritage Conservation Plan | 1 |
| Parkway Ave is and must remain as a landscape heritage item in the LEP it holds the Hamilton South Garden Suburb together and establishes this area with beauty and must remain for all citizens of Newcastle and surrounds. The key importance is the Norfolk pines, the wide grassed strip to define and attracts the wildlife (cockatoos) historically garden beds were also along the Avenue as well providing extra beauty to this garden strip. Without Parkway Avenue remaining as is there would be no defined Hamilton South Garden Suburb heritage Area. please preserve this wonderful avenue as it has historically been intended. | 1 |
| Parkway Ave is one of the grand boulevard of Newcastle and should be protected especially those green median strips and norfolk island pines ... it is an iconic street of newcastle | 1 |
| Parkway Ave is the last of the wide avenues with mature trees providing a pleasant vista to drive down. I wish to protect this picturesque avenue as far as possible. | 1 |
| Thanks                                                                                       | 1 |
| Parkway Ave must be included in the Ncle LEP to preserve the median strip for it's heritage significance, and keep the area as it is meant to be. | 1 |
| Parkway Ave with its green and wooded divide is a unique feature of area part of Newcastle. If there are plans to widen the thoroughfare, consideration must be given to the fact that there are two large schools on this road with many students having vehicles these days. The confusion and congestion before and after school times is already quite dangerous, and this would be exacerbated by increased traffic flows and speed. | 1 |
| Parkway Avenue has one of the most enduring features of suburban Newcastle in the long median strip and the Norfolk pine trees. It is a heritage of grand planning dating back to post WW1 and the early 1920's. There are 3 schools along its length and it has many years of efforts to calm traffic in what is already a neighbourhood zone. It was a travesty when the traffic lights were so poorly constructed at Stewart avenue causing traffic chaos on a regular basis. The streets were never meant to be feeder roads and never designed to be the next main road parallel to Glebe and King streets. There should be less traffic not more, if anything add a proper 'cycles only' cycle path instead. | 1 |
| Parkway Avenue in its current form (wide median and substantial/aged pine trees) provides significant landscaped heritage qualities. From Hamilton South to Bar Beach the avenue should be protected and included in the LEP. | 1 |
| Parkway Avenue is a major feature of Hamilton South, with its greenscape and Norfolk Island Pines being a significant value to the Heritage Conservation Plan. It also gives the area a sense of space within an area that is becoming densely populated. | 1 |
| Parkway Avenue is a Newcastle landmark and I strongly support the proposal to have it listed as a landscape heritage item to protect this wonderful thoroughfare. | 1 |
| Parkway Avenue is a unique streetscape in the city of Newcastle and has considerable environmental and aesthetic importance to all Novocastrians. Heritage and Conservation is not only about buildings but also about preserving our environment from the ever increasing construction of hard surfaces which place greater stress on our trees and grassed areas. Over time both Stewart and Gordon Avenues have lost their medians to vehicular traffics priority. Due to poor road planning Gordon Avenue no longer safely links with the current road system and so attracts very little traffic. Case in point: That median should never have been removed. Parkway Avenue should be protected from the same fate and priority listed without further alteration to the LEP. | 1 |
| Parkway Avenue is a vital and important part of the Hamilton South Garden Suburb, it has been forever the Norfolk Pines are majestic and the native birds such as cockatoos on this strip are a daily morning and afternoon occurrence please keep parkway Ave in the LEP for historical and environmental and heritage significant No not change this | 1 |
| Parkway Avenue is a vitally important feature of Hamilton South Garden Suburb and this should be reflected by inclusion in the LEP as an item of huge significant value to Heritage Conservation Plan. This should not be altered in any way. | 1 |
| Parkway Avenue is an amazing street that should be protected from development. It is well known by visitors from all over the area, enjoyed by the residents for its style and the median strip wonderful for minimising the noise of traffic. |
| Parkway avenue is an iconic feature of Newcastle and should retain its heritage features. |
| Parkway Avenue is an important feature of the Hamilton South Garden Suburb and this be reflected by inclusion in the LEP as an item of significant value to the Heritage Conservation Plan. |
| Parkway Avenue is the last remaining intact boulevard in the original Garden Suburb plan by its impressive streetscape, and relatively unspoiled architectural development makes it a unique and imposing icon, well worthy of preservation and listing on the State Heritage register. |
| Whilst residents have previously stated their strong desire to preserve the form of Parkway Ave, RMS are currently planning to encroach on the central median to allow more more traffic to flow through the Heritage Area. Construction work would certainly endanger the root systems of the magnificent Norfolk Island pines, and allow the diesel and petrol exhaust fumes emanating from trucks to discharge directly into the tree canopies causing distress and likely permanent damage. RMS should be more concerned with the safety aspects of encouraging more traffic past the three large schools, and resident amenity and access to their properties. and taking measures to divert traffic away from Parkway Avenue. There appears to be little communication between RMS and Council in this matter. |
| The recent and sudden demolition of all of the remaining properties in Denison St appears highly coincidental and worthy of investigation. |
| Parkway Avenue should be included in the LEP within the HSCA |
| Parkway Avenues grassed median and Pine trees are a unique residential feature of genuine heritage conservation significance to the entire City of Newcastle. This architecturally designed promenade was a key component in the landscape planning of the Hamilton South Garden Suburb. Originally Including lovely flowerbeds (we lived here at the time) the significance of the term Garden Suburb' is closely linked to features such as this. With constant pressure from traffic and building construction it is encumbered upon us as Historical custodians to take measures to protect This Avenue of aesthetically pleasing lines and greenery and acknowledge prominent role it plays in the City. The Novocastrians Parkway Avenue is synonymous with beautiful tree lined street. |
| Parkway is an important feature of the Hamilton East area and should be reflected by inclusion in the LEP as an item of significant value to heritage conservation in the area. |
| Please Parkway Avenue must be included in the LEP as an item of huge and immense importance to the heritage conservation plan the value is priceless to this area |
| Protect our heritage and beauty of the area and especially Parkway ave .. No more traffic should be funnelled down it |
| Re inclusion of Parkway Avenue as a heritage item, I am particularly interested in ensuring there is no loss of median area or trees due to road widening or addition of turn pockets etc. |
I also quote the draft report p.40: “The existing appearance, form and function of Parkway Avenue, including the road verges, street trees, bridge abutments at Cottage Creek, and the central median that splits the carriageway into two single lane roads”.

I have a concern that Parkway Avenue westbound between National Park and Stewart has become a de facto two lane road. Please take action to return this section of Parkway to a single lane of traffic.

Re proposed new area for Ada St and Denison St:
- Zoning was changed from Residential to Mixed Use Medium Density in 2012, no residents were aware of change, therefore there was no effective public consultation
- First we knew of zoning change was when the current Dension St development was proposed; there were over 50 submissions from the public against it - most feeling it was out of character
- Following the earthquake houses had to be rebuilt in residential style sympathetic to heritage, why change this attitude?
- Re the block between Ada and Parkway; 7 of 8 houses are owner occupied; 3 houses were built for the Australian Agricultural Company circa 1890 and all are well maintained (the area is older than Hamilton St, I have a photo from 1910 showing Parkway did not exist as a road);
- Many residents have spent a lot upgrading properties sympathetic to heritage concerns
- There are many fine heritage properties in Denison St as well, as well as the nearby Ambulance Station and TAFE, which are both heritage listed
- The character of the area is at a tipping point due to decision to change to medium density mixed use, and the subsequent development in Denison St, which is completely out of character. This needs to be overturned, else the heritage character of this area, which is far older than Hamilton South, will be lost.
- In my view, the houses on Denison St between Ada St and Parry St should be added as well. All the properties are residential style and many are pre 1930. E.G. The house on corner of Ada and Denison is also circa 1890

Re: Parkway Avenue
It absolutely should be included as a landscape heritage item in Schedule 5 of the Newcastle LEP. NCC’s draft report supports this view with numerous references to it being "...the most enduring aspect...of the area..."

Previous heritage studies "...recommend the heritage listing of Parkway Avenue...as (a) heritage item...

"Elements that are to be preserved include the existing appearance, form and function of Parkway Avenue, including the road verges, street trees....and the central median that splits the carriageway into two single lane roads".

Based on the above quote from NCC's own reports, I fail to see any viable option other than including Parkway Avenue as a landscape heritage item in Schedule 5 of the Newcastle LEP.

NCC / RMS (whoever is responsible) are currently complicit in eroding the heritage significance of this thoroughfare. It is a collector road, not a sub-arterial road. The signalisation of the junction with
Stewart Avenue accelerated this process and NCC / RMS continue to ignore residents concerns. Vehicle weight limits are never enforced, the traffic calming measures (speed humps / 40km/h zone, redirection of traffic flow along Smith St) never materialised with no feedback from NCC. The median strip continues to be damaged by illegally parked cars during winter weekends.

If NCC are serious about protecting THE most enduring aspect of the Hamilton South Garden Suburb HCA, they MUST act now and enforce the rules.

Removal of the foundry in Glebe road from the hamilton south Garden suburb HCA would be catastrophic for the existing residences of the surrounding area. The only person who would benefit from this is the person who brought the property on glebe road where Merewether smash repairs previously was. My property boarders this property and I would be the most disadvantaged in the area. Having renovated our home within the guidelines of the heritage area and at great expense we should be protected by inappropriate/unsympathetic developments. The impact on traffic, parking, noise, loss of value of our property and the destruction of our lifestyle would be unthinkable. Council planning dept has been lacking by its own admission and has already allowed inappropriate development/renovations in the heritage area but this must stop. This could open the flood gates for potential high density development of up to 4 storeys. Common sense should prevail and this MUST NOT GO AHEAD

Removal of the part on Glebe Road would allow for multi-storey buildings to be built along this section. This would impact on the streetscape of Cram Street significantly, which would mean that views from the street on Cram Street would no longer be in keeping with the Heritage Conservation Area requirements.

Residents in the Hamilton South Garden Suburb HCA have made significant investment in restoration and maintenance of their homes in keeping with the provisions of the heritage conservation plan for the suburb. Any change to the perimeter of the HCA will erode this process as well as impacting on the privacy and amenity of residents who have planned the back yard areas of their properties to highlight family and social recreation. A rezoning along Glebe Road raises the prospect of these areas being overlooked. The removal of Glebe Road properties from the HCA has the potential to seriously impact on the character, safety and facility of the residents of Cram and National Park Streets.

Any intensification of development on Glebe Road will also impact on the drainage to Cram Street which has experienced serious flooding issues in the past. Cram Street takes storm drainage from Glebe Road and Turnbull Street. A significant increase in building coverage and hard surface on the Glebe Road properties would greatly increase flooding potential in Cram Street.

Parking restrictions on Glebe Road already cause increased parking on Cram Street. This would be increased by any change in development density on Glebe Road.

My survey of properties shows that the majority of households in that area have kept their housing within the concepts of the HCA. From Smith Street to National Park Street six original houses have been restored in keeping with the HCA and one left unrestored. Three new houses have been built outside the concepts of the HCA. In the Glebe Road section beyond National Park Street four houses retain the fabric and
The concept of the HCA and one has been redeveloped out of sympathy with The HCA. The Glebe Road frontage forms an integral part of the HCA and should be left intact. Five properties abutting the corner of Smith and National Park Street form a neighbourhood commercial precinct. Any redevelopment of the commercial premises should be constrained to the current footprint to retain its neighbourhood focus.

Since Parkway was an original avenue in the setup of the Garden Suburb concept it should always be retained / conserved for its absolute heritage value.

Strong guidelines that Council will enforce and support is crucial to ensure no further erosion of properties in the area to non contributory status. In the past Council has entertained such development proposals and surrounding residents have needed to campaign against such undesirable development applications. Bottom line Council must actively promote and support its own heritage guidelines.

Strongly oppose removal of part of Glebe Road from boundary of Hamilton South HCA.

The affected residents campaigned very hard recently to limit the development of Denison St because it did not fit in with the design of the area and a number of other issues whereby it did not comply with area requirements. Now this development has been approved and houses have been demolished to make way for modern residential and business development, that Council has now decided to make it a heritage area that would have prevented this development from occurring. This is crazy and smacks of hypocrisy. The timing is impeccable! I will suspect the affected residents that are affected will again campaign very hard to prevent this ludicrous rezoning from occurring.

Consideration should also be given to Denison St between Parkway and Parry St as it has a high degree of continuity, with 11 of the 13 houses on the north side original. and the south side showing how medical suits had to be built in keeping with the street scape following the earthquake, which is now part of the Newcastle heritage.

Denison once was a grand street and with some love this could be returned.

The entire length of Parkway Avenue has historic relevance. As one of the suburbs main streets it is visually pleasing, creating a sense of space and a park-like feeling. Its central strip of Norfolk Island Pines is environmentally important contributing to air quality (helping balance the increasing traffic pollution) and supporting a variety of bird life. Parkway Avenue and Hamilton garden Suburb, as they exist today, should be included in the LEP and as such would remain true to the designers original aspirations.

The Grass Median in Parkway Avenue must be maintained in order to preserve the original plan for the Garden Suburb. Council should also abide by the concept of a ‘Garden Suburb’ and disallow the removal of trees which provide shade and a healthy environment. Council should not allow the area to become a concrete jungle with out of proportion areas of concrete which do not allow for drainage or absorption. Considering the rates which residents pay, the Council should not allow the Garden Suburb environment to be destroyed. It is a fitting entry path to the beaches and coastline and a city.
which will hopefully rise again!

The Hamilton South Garden Suburb HCA is highly valued & strongly supported by residents within the area. This is reflected in the excellent condition of the properties within the HCA and the high resale value when properties are sold.

The heritage classification has given owners, & potential owners greater certainty that the heritage character of the area will be respected & preserved and that unsympathetic development will not be permissible. This confidence is reflected in the quality of property maintenance & in the respectful way that the character of the dwellings, their surrounds & the streetscape has been honoured during maintenance, renovations, restorations and additions on the housing stock within the HCA.

I strongly object to the removal of part of Glebe Road from the Hamilton South Garden Suburb HCA. The majority of the houses in this section of Glebe Road are still intact as originally constructed and still reflect the character & streetscape of the HCA.

If this area of Glebe Road is rezoned the current properties & land in Glebe Road will be subject to redevelopment. Existing properties & open space will be destroyed & replaced by buildings of much greater height & density & a totally different character to that of the HCA.

These changes will degrade the quality & amenity of the properties behind them in Cram Street & National Park Street. Privacy will be destroyed by much taller properties overlooking both the curtilage & rooms at the rear of the existing dwellings in Cram & National Park Streets.

I have seen these detrimental effects caused by a Glebe Road redevelopment which looms over a neighbour's home in Cram Street. The pool, backyard & rear rooms in the neighbours property are totally overlooked by this unsympathetic two story development on the boundary fence thus reducing the amenity for the home owners & the resale potential of the affected property. This redevelopment happened prior to the declaration of the Hamilton South Garden Suburb HCA.

It is important for council to consider that residents within the HCA purchased their homes and have invested heavily in quality maintenance, restorations, renovations & additions which respected the heritage character of the area. Owners did so in the belief that they had the certainty of protection against detrimental redevelopment in their designated Heritage Conservation Area. Now it is proposed to change the rules. This will adversely impact on the capital asset of the property owners and the amenity of the affected residents.

Long standing drainage & flooding issues in Cram Street will be exacerbated by the increasing density & coverage of open space in Glebe Road which will occur with the proposed rezoning. Glebe Road is higher than Cram Street which has a long history of acting as a drainage detention basin for Glebe Road.

Parking will become much more of a problem due to increased numbers of occupants from higher density redevelopment in Glebe Road. Overflow parking will occur in Cram & National Parks Streets.
As our existing area has revitalised with younger families moving into the area there is much more on street parking in Cram & National Park Streets due to increasing levels of vehicle ownership. Because more family members have personal or work vehicles they need to park on the street. Higher density will increase traffic management & safety issues as residents & visitors at the new dwellings will need to enter & exit onto

The landscape of Parkway Ave must be preserved as a gateway to the beach and should be protected as a heritage item.

The proposed removal from the Garden Suburb HCA of properties on Glebe Road between National Park and Smith Streets due to the buildings in this area being deemed of non-contributory to HCA is of great concern. The heritage significance of these particular properties is not relevant - it is the impact on the surrounding area that a change in the HCA boundary may have. That is, the removal of the HCA in effect makes way for the potential high density development which this area is currently protected from. The building mass, population density and inherent traffic issues from potential over-development will adversely affect the liveability of all surrounding residents who purchased in this area for the very benefits the Garden Suburb HCA currently provides. There is absolutely no good reason to remove this portion of Glebe Road from the HCA. Any future development of this portion of Glebe Road needs to be consistent with existing HCA of Hamilton South Garden Suburb.

The removal of the boundary directly impacts my property in that I live at [redacted]. The removal means that my property becomes the edge of the boundary. I am concerned about this change as it means that medium/high density housing could be built on my fence line overshadowing my property. I am already surrounded by 3 x 2 storey properties that overlook and overshadow my property. My recommendation is that a transitionary boundary (buffer zone) be proposed which limits what can be built around the edges of boundaries. This would address the issue of having a 5 storey apartment complex next to a single storey heritage house.

The RMS proposal to increase traffic flow along Parkway Ave by means of reduction of the size of the Parkway Ave median strip would greatly diminish the heritage value of the Hamilton South Garden Suburb.

The RMS proposal to increase traffic flow on Parkway Ave would greatly diminish the heritage value of the Hamilton South area.

The streetscape of Parkway Ave should remain as is and protected from any alterations under the Newcastle LEP. It is an important part of the original Garden Suburb.

The verge and trees must be protected in Parkway Ave

There are very few areas in Newcastle that are as unique as parkway avenue for the architecture of the homes and the central garden and pine trees. It would be tragic if this was not conserved for future generations. I would trust that the council and local government would have the foresight to ensure this occurs.

There is a suggestion that RMS wish to narrow the Parkway Ave median strip to allow for more traffic flow along Parkway Ave. I strongly oppose this & I believe that Council should oppose this too. Such a development would greatly diminish the landscape heritage value of the Hamilton South Garden Suburb.
<table>
<thead>
<tr>
<th>Garden Suburb.</th>
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</thead>
<tbody>
<tr>
<td>This area looks run down, assuming the HCA is removed, this area could be revitalised by residents and council</td>
<td>1</td>
</tr>
<tr>
<td>This Heritage conservation plan will only benefit by Parkway Avenue being included in the LEP Parkway Avenue is a huge important and historical part of Hamilton South and it must remain that way including the majestic Norfolk Pines that line this street</td>
<td>1</td>
</tr>
<tr>
<td>Under no circumstances should the amenity of Parkway Ave be reduced to accommodate additional traffic. It is a residential area - not a major thoroughfare.</td>
<td>1</td>
</tr>
<tr>
<td>Under no circumstances should the Glebe road boundary be altered. This includes a church and church hall used by the community</td>
<td>1</td>
</tr>
<tr>
<td>We have too many to enumerate here. Suffice to say since the introduction of the various HCAs there have been many non complying developments approved on the boundaries and within the areas themselves by either clever words or deceit. It would seem that there is one rule for the residents and one for the developers. Why is it that compliance is only for those who cannot afford the costly legal challenges, which when they come from developers Council just caves in. Prime example is the disgusting Bimet development which really did not satisfy the HCA requirements of being on a boundary.</td>
<td>1</td>
</tr>
<tr>
<td>The Glebe road area which it would seem may be excised from the HS HCA - why? Was there an application to remove this area. If so who applied? A person or entity?</td>
<td></td>
</tr>
<tr>
<td>The area should NOT be removed as it will only create a precedent for peripheral areas along the HCAs (as with Bimet - but that fell under SEPP which of course is an out for Council)</td>
<td></td>
</tr>
<tr>
<td>As for Parkway Avenue it is time that this area properly protected protected by heritage conservation laws</td>
<td></td>
</tr>
<tr>
<td>The amenity of this area has been destroyed by the huge volumes of traffic, some of which should not even be in the area (GVM&gt;5T)and the excessive speed at which it travels.</td>
<td></td>
</tr>
<tr>
<td>The ideals of the HCA are certainly not being adhered to by any save for the residents.</td>
<td></td>
</tr>
<tr>
<td>Parkway Avenue is a residential street and not any sort of heavy vehicular traffic road. It is supposedly a Collector Road which in theory gathers traffic from the local roads and feeds it to the arterial roadway system. It is not for through traffic both heavy and too fast for a residential area. It would seem that these issues are overlooked for the sake of Council and the RMS not wishing to improve the surrounding arterial road system.</td>
<td></td>
</tr>
<tr>
<td>By the way we are not the only residents who think this way.</td>
<td></td>
</tr>
<tr>
<td>Should you wish further discussion please feel free to contact me.</td>
<td></td>
</tr>
</tbody>
</table>
We live on Parkway Avenue. We have a young family and walk to and from Hamilton South Public School every day. Parkway Avenue, including its pedestrian friendly wide central median, is an important feature of the Hamilton South garden Suburb and should be reflected by inclusion in the LEP as an item of significant value to Heritage Conservation Plan.

With the current push for major developments in this area (such as the current 3 storey mixed commercial residential building comprising of 4 medical suites and 10 units) it is incredibly important that we look to protect the heritage homes and landscape that we have left. This also includes the iconic Parkway avenue landscape and median strip.

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<tr>
<td>Citizen of Newcastle</td>
<td>1</td>
</tr>
<tr>
<td>considering owning</td>
<td>1</td>
</tr>
<tr>
<td>I am interested in this area</td>
<td>1</td>
</tr>
<tr>
<td>LGA resident &amp; ratepayer</td>
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</tr>
<tr>
<td>live nearby</td>
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</tr>
<tr>
<td>local resident</td>
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</tr>
<tr>
<td>neither</td>
<td>1</td>
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<tr>
<td>Non resident</td>
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<tr>
<td>considering residing</td>
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<tr>
<td>I am interested in this area</td>
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OE_recommendationsCopy2. Do you have any further comments to make about these recommendations?

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<thead>
<tr>
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<tbody>
<tr>
<td>Future development in the street should reflect the scale of the existing streetscape.</td>
<td>1</td>
</tr>
<tr>
<td>I do not see that these features really contribute greatly to the streetscape. I would rather see modern kerbs and gutters that suit the commercial development of the area, and the sandstone material could be used elsewhere where heritage significant areas are being upgraded or restored.</td>
<td>1</td>
</tr>
<tr>
<td>I think Beaumont Street business precinct is looking untidy at present, with a few premises unoccupied. The Islington end is looking far better, so I have no objections to the precinct having the opportunity to be smartened up by removing the Heritage category.</td>
<td>1</td>
</tr>
<tr>
<td>I think the Hamilton Business centre has struggled over the past decade to grow as a top income earner for the city. Removing the HCA from the businesses centre will give and residents and business owners more ownership to transform the heart of Hamilton.</td>
<td>1</td>
</tr>
<tr>
<td>I would be concerned if lifting the heritage listing what would be the LEP be.</td>
<td>1</td>
</tr>
<tr>
<td>I could understand developing it more, but not to make it a second Kotara.</td>
<td>1</td>
</tr>
<tr>
<td>The street scape is unique to this strip. However there should be proper cleaning of the street/footpath and maintenance. There are to many Asian food Shops/ eatery in this Area it should be more available to/for Southern Europe cuisine as is the history of this strip and it's ethnic influence.</td>
<td>1</td>
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The_hill_Property_typeCopy2_Other:. Do you own or rent property in The Hill Heritage Conservation Area?

<table>
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<tr>
<th>Verbatim Responses</th>
<th>Total</th>
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<tbody>
<tr>
<td>Citizen of Newcastle</td>
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</tr>
<tr>
<td>considering owning</td>
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</tr>
<tr>
<td>LGA resident and ratepayer</td>
<td>1</td>
</tr>
<tr>
<td>na</td>
<td>1</td>
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</tbody>
</table>
No | 1
No but can see The Hill from my lounge room. | 1
No just interested in heritage features | 1
One street from heritage area | 1
xx | 1

The_Hill_Property_type_2Copy2_Other.. Are you a resident or business owner?

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<tr>
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<tr>
<td>considering residing</td>
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<td>Landlord</td>
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<td>LGA resident and ratepayer</td>
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<tr>
<td>na</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>No but I can see The Hill from my loungeroon.</td>
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</tr>
<tr>
<td>Rental property</td>
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</tr>
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<td>xx</td>
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OE_recommendationsCopy3. Do you have any further comments to make about these recommendations?

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Although there are some 'out of character' buildings here there are quite a few houses worthy of conservation protection. Listing this area will prevent redevelopment and reconstruction of unsympathetic buildings on the fringe of an existing conservation area.</td>
<td>1</td>
</tr>
<tr>
<td>Ensure that all property owners are consulted on the potential change and its implication for property maintenance and improvements.</td>
<td>1</td>
</tr>
<tr>
<td>I agree with Council's endeavours to promote conservation through efforts like identifying potential heritage, raising community awareness about heritage, and establishing and managing conservation zones. However, the proposal to extend the existing area would significantly deteriorate the fabric that constitutes a true heritage conservation area.</td>
<td>1</td>
</tr>
<tr>
<td>In simple terms, a conservation area is one that is historic in character and is special or attractive enough to</td>
<td></td>
</tr>
</tbody>
</table>
warrant protection to maintain the traditional, special and individual character of a place. The Terrace and other areas within the existing Conservation Zone in my view meet this criteria. However, the extension of the zone as proposed will achieve nothing but to fossilise the proposed extension area and not allow it to evolve with the modern world that Newcastle City is becoming. My home for example was constructed in 1998 and a large percentage of other homes were also built around the same time. They have no heritage significance or character and they add nothing to making the existing Conservation Zone any "more special.

I do however consider the terrace homes on the northern eastern side of Bingle Street would be the only properties worthy of inclusion in any proposed extension of the conservation zone.

I also recognise the counter argument that whilst conservation area status does lead to additional planning constraints and considerations for the land owner, the purpose of conservation is not about preventing all change but about managing it in a way which preserves its special interest. The extension area proposed has no areas of special interest. While the benefits of owning a property in a conservation zone tend to be intangible in nature and flow from the pleasure or enjoyment associated with owning a historic or unique house of conservation value, the costs are more real and visible. These include the cost of ensuring alterations and extensions to the house are sympathetic to homes of historic value and the owner is burdened by the opportunity cost of forgoing land development opportunities which are available to homes outside conservation zones.

There are also costs the Council bears in regulating land use in conservation zones and Council is dropping the ball when it comes to regulating the existing Conservation zone on The Hill. The significant property at 12 The Terrace for example standouts. It has been transformed into an illegal boarding house and the front downstairs verandah has a staircase constructed to connect it to the upstairs verandah! The conservation value, appeal, and aesthetics of the area is impacted because Council is unable to meet its regulatory and conservation demands. If Council cannot meet its current obligations it will be unable to meet them under and extended conservation zone.

I am very pleased to endorse this addition to The Hill Conservation Heritage Area. I would now like to encourage our Council to ensure that these heritage areas are not over-crowded by medium density development ((R3) as has happened in other parts of Newcastle and NSW. These heritage areas should be left to demonstrate to all Novocastrians and to tourists visiting our City our pride in our history. They should be available to future generations and not drowned by adjacent high rise development. We have a very special heritage to proclaim.

I believe each property in this area should be individually assessed and reviewed by Council should the Owner want to redevelop the property. Whilst I appreciate keeping our history intact there are properties within this boundary which have absolutely no heritage value at all. They were built at a time when financial hardship meant the design and materials used were of a low standard and quality.

The city is experiencing a revitalization and most developers (not talking about big developers but just ordinary people wanting to buy and live in the city) are sympathetic to the property's character and try to build or redevelop with that in mind. It would be a shame to see properties remain in disrepair because a person is not able to remodel in the modern accepted styles of today.

After all, if we were to use this philosophy we would all still be living with dirt floors and architects would be redundant.
I don't feel that the housing merits the extension of the HCA. The housing is not heritage, in the same way that the terrace is. There is a very high number of non-heritage housing and brick flat buildings. The mix of housing in High Street is typical of many streets in Newcastle that are not listed as HCA.

I am surprised to see my house listed as a contributing to the HCA as it is a 1950's brick building, which was rendered and painted baby blue in the 1990's!

The eco texture report supports extending the HCA to High Street in 2005, and this same report is then questioned as to whether it is a valid opinion due to the age. The report then simply states that "This review has re-assessed the area and finds certain streets are considered worthy of statutory listing as a HCA" can we have more information as to why the High Street extension is proposed?

None of the 2015 public voice responses included extending the HCA to include High Street.

It should be noted that Council previously approved the demolition of my house!

I have spoken to many neighbours about this extension of the HCA and none have understood or been supportive of it. I hope that they have been able to take the time to raise their objections. I should also note that those that I have spoken to did not receive notification of the 2015 survey in the mail, myself included.

I strongly agree with the boundary extension but R3 (medium density) development should not be permitted in a Heritage Conservation area.

Obviously in this area there will be a tendency towards developments:
1. designed to maximise revenue-gathering
2. obsessed with size and grandeur at the expense of aesthetics and impact on neighbours
3. unsympathetic to the gracious character of the area
Therefore we are keen to see our area included in the heritage conservation zone.

The approval of developments not consistent with existing building stock over many years by NCC, particularly on the northern side of High Street, has created a hodge podge of conflicting building styles and densities which makes it a case of "try and spot the heritage houses." The inclusion of buildings at 11A and 30 High Street as contributing to the heritage values of 19th century and inter-war houses makes me wonder what the consultants were thinking. Presumably this means that the future development of modern style houses such as No. 11A will be OK if the boundary adjustment is approved. The issue of including High Street in the existing HCA has been examined extensively in the past and no compelling reasons were found for its inclusion. Council should only include new areas in HCAs where there has been a low level of attrition and degradation of the housing stock to be protected and not where the streetscape has already been significantly altered by inappropriate development. The area is also progressively being turned into a parking lot due to the failure of NCC to provide adequate parking in the CBD which is hardly consistent with HCA values.

These changes will make it difficult for owners to make updates to their properties as required. Having to get approval for this constantly will be a real problem.

This action would decrease the house values in the proposed area and although I value heritage and my home is approx 100 years old and beautifully restored I feel it unfair that I should lose value by councils.
actions

this area needs to be included urgently to prevent the redevelopment in an inconsistent way with the neighborhood 1

this will restrict my ability to renovate and repair my property that I have lived in for nearly 50 years. There is no obvious benefit to owners and a risk of de-valuing my property if I chose to sell. Council already has substantial regulations and another level of regulations is not required or wanted 1

Yes I strongly agree.

However I believe that the whole of the eastern side of Lemnos Pde should be included in the extended HCA zone. According to me reading of the criteria, the following houses in that eastern side of Lemnos Pde would be classified as follows.

No 1 - a modern architecturally designed house with features sympathetic to the streets heritage styles - e.g pitched roof.

No 1A as above

No 3 neutral / contributory
No 5 contributory
No 7 neutral contributory (pitched roof)
No 9 contributory

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Citizen of Newcastle</td>
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<tr>
<td>hamilton south</td>
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</tr>
<tr>
<td>I am interested in the area</td>
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</tr>
<tr>
<td>LGA resident and ratepayer</td>
<td>1</td>
</tr>
<tr>
<td>Live nearby</td>
<td>1</td>
</tr>
<tr>
<td>na</td>
<td>1</td>
</tr>
<tr>
<td>Neither</td>
<td>1</td>
</tr>
<tr>
<td>Non resident</td>
<td>1</td>
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</table>
Are you a resident or business owner?

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizen of Newcastle</td>
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</tr>
<tr>
<td>considering residing</td>
<td>1</td>
</tr>
<tr>
<td>I am interested in the area</td>
<td>1</td>
</tr>
<tr>
<td>LGA resident and ratepayer</td>
<td>1</td>
</tr>
<tr>
<td>Live nearby</td>
<td>1</td>
</tr>
<tr>
<td>na</td>
<td>1</td>
</tr>
<tr>
<td>Neither</td>
<td>1</td>
</tr>
<tr>
<td>Non resident</td>
<td>1</td>
</tr>
<tr>
<td>Own property and rent it</td>
<td>1</td>
</tr>
<tr>
<td>See above</td>
<td>1</td>
</tr>
<tr>
<td>Visitor</td>
<td>1</td>
</tr>
</tbody>
</table>

Do you have any further comments to make about these recommendations?

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am delighted that the Council is considering this precinct as Heritage Conservation. Too many houses have been demolished and rebuilt with cement &quot;boxes&quot;or in many cases not maintained to an appropriate standard. I imagine there are some owners who buy properties as investments in this area and just let them out without doing any running repairs or improving gardens etc. So I am delighted that owners may be encouraged to take more pride in their houses. Also, I was pleased to hear at the meeting last night that reclassification is likely to include streetscape improvements like street trees, traffic calming devices on corners etc. I would love to see a community garden established within the precinct somewhere, maybe the library or some other appropriate spot in the way it has been done on the corner of Bull and Darby Sts Cooks Hill -I think it would add a point of interest and a community gathering point as well as providing a practical asset to the community. I am not clear on the implications this would have on the processes for renovating our property. I expect it</td>
<td>1</td>
</tr>
</tbody>
</table>

| Own properties adjacent to this proposed area | 1 |
| Visitor | 1 |
means that applications for approval for any renovation will need to be submitted (with additional fees). I also expect that there will be design limits or constraints imposed. For eg. Another house in our street is already listed and the owners were only permitted to restore not renovate. I am not clear on the implications for property value but I would suspect that it would not increase and is more likely to decrease the value as the costs and trades associated with maintaining or restoring may be unattractive to buyers. I don’t understand the impact this will have on our rates. Will there be an additional fee or tax added to already escalating rates? There are many homes within the proposed area that are certainly not of heritage significance and I am left scratching my head over the motivations council have for wasting time and public money on such an unnecessary proposal. I can't see on any advantages or benefits for the home owner in this proposal.

I doubt the historical significance of this area is particularly valuable. I believe the more valuable HCA should be Veda street and surrounds as this was where the first Mine SUperintendants were housed in the early days of the "Bog Hole".

I think the heritage significance should include: Making areas Heritage compliant places greater financial burden on property owners. Rates are increasing and it will not be possible to undertake reasonable repairs or changes to my home if heritage guidelines are imposed.

The Catholic Diocese of Maitland - Newcastle owns significant property interests to the East of the proposed Heritage Conservation Area. The properties owned and operated by the Diocese are at and . The Diocese is currently in the process of drafting a Master Plan for the sites mentioned above including the any additional sites affronting Selma Street.

Given the Master Planning process is well underway the Diocese would like to understand the impact (if any)of the proposed Hamilton Residential Heritage Conservation Area on the Diocese's proposed draft Master Plan.

The heritage area should be extended to include Dumaresq Street West of Gordon Avenue.

The make up of the building in this area are too diverse in nature and age to constitute any particular style or type of building to make any unique heritage style. Cameron street is circa 1905 whereas . The same is for and the property two doors further down. James street is circa 1991 and also. James street is also a “new property”. This is also the case for the property two doors East as well as the duplex next door. Cnr. Lindsay and Cameron is also a “New house” again with no “Heritage value. These are only a few examples within a small radius of . Without going further this is typical of this suggested area.

I know that several of these dwellings were replaced because of damage ie. termite infestations making any repair impossible and because of the small size and shape of the blocks these owners were left with optimising their finances to construct feasible- non heritage dwellings.

Also, what kind of dwelling style would be suitable for this area as the current buildings range from wooden miner's to freestanding terraces, older apartments like the corner of James and Lawson to buildings exhibiting ethnic heritage styles and many houses built over the last 40 years? That there is no particular heritage style to be preserved makes the idea silly.
The property we own at 3 Murray st is included with which we agree. It is a 1900 house, which had separate kitchen and outside toilets. We have removed them and made the back modern. However, the front half is as it was when built except the front verandah which was demolished. We rebuilt it to look like the original. We think that the frontages should be heritage, but not the back.

The proposed Heritage Conservation Area for the Hamilton Residential Preinct is not supported given the mixed demographic the precinct attracts. The concept of a HCA means that the current proportion of contributory dwellings will tend to naturally limit who can take up residence within the precinct:

- Those with sufficient funds to maintain such dwellings, which becomes more expensive than modern designed and constructed dwellings;
- Those with sufficient funds to live within such dwellings, which again is generally more expensive due to greater requirements for unnatural heating, cooling, and lighting.

Currently, the village atmosphere exists because of the diversity in demographic: this may be put at risk, for example, students may not be able to afford enen greater amounts of rent as living in heritage style housing becomes even more expensive; or relatively lower income families despite abilities to save, may not be able to afford to live there, as the greater living expense may be used up in the capital acquisition in a form of debt paydown. In the long term, this may sterilise the village like atmosphere enjoyed in the area.

There should be consideration of long term owner/occupier needs ie knock down rebuild in view of aging issues and living in a more suitable home for ageing owners. As Govt; wants the elderly to stay in there home and for many like myself I have been planning this for 20 years. To stay on my property site. and should not be disadvantage re the proposed new changes (perhaps there should be a clause re this issue added to any change). Additionally, re streetscape I would like to see traffic calming/restriction (greened kerbs) restrictions to oversize vehicles/caravans etc being parked on street obstructing the non-owners property to streetscape view/light/security/safety and the overall enjoyment of environment/surrounds ( some areas are becoming a caravan/ truck storage area ). James street is the only entry point from Gordon Ave; and has become a noisy thoroughfare 24/7 consideration to making this entry a Cul-de-sac/other ?

This is a very significant collection of diverse housing styles and I support its addition to the HCAs. It is most important to gain the approval of the residents/owners of the housing within the area and build their awareness of the plan and its strictures in regard to development and renovation before declaring the new HCA. All efforts should be made to link the HCA smoothly to the Beaumont Street precinct by way of signage,street furniture and vegetation.

<table>
<thead>
<tr>
<th>GR_Property_typeCopy2_Other. Do you own or rent property in the Glebe Road The Junction Cottages Heritage Conservation Area?</th>
<th>Total</th>
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<tbody>
<tr>
<td>Verbatim Responses</td>
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GR_Property_type_2Copy2_Other: Are you a resident or business owner?

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<th>Verbatim Responses</th>
<th>Total</th>
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<td>na</td>
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<tr>
<td>No</td>
<td>2</td>
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<tr>
<td>Citizen of Newcastle</td>
<td>1</td>
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<tr>
<td>considering residing</td>
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</tr>
<tr>
<td>I am interested in this area</td>
<td>1</td>
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<tr>
<td>Landlord</td>
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<tr>
<td>LGA resident &amp; ratepayer</td>
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<tr>
<td>live nearby</td>
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<tr>
<td>neighbour</td>
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<tr>
<td>Non resident</td>
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<td>Rental property</td>
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<td>Visitor</td>
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OE_recommendationsCopy5. Do you have any further comments to make about these recommendations?
<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approximately 5 years ago an appeal was denied for a development plan for Glebe Rd by the Minister for Planning and Environment. The court considered that the facades of the cottages were mostly unchanged and should be maintained as an example of the original village architecture still in tact.</td>
<td>1</td>
</tr>
<tr>
<td>Lovely group of old cottages most of which are still in good condition if not exactly in an original state. Worthy of protection in the inner city.</td>
<td>1</td>
</tr>
<tr>
<td>The heritage nature of this area has already been compromised by the construction of a 2nd (modern) dwelling at the rear of 2 of the 10 or 11 properties that would be affected by this proposed conservation area. The proposed area is also quite small &amp; isolated, in that it is essentially enclosed on 3 sides by The Junction's existing retail &amp; commercial development. This development already detracts from the overall visual appeal of the current streetscape.</td>
<td>1</td>
</tr>
<tr>
<td>The Junction Village is a rather unique 'village' style shopping precinct. It is bounded by residential properties some of which have valuable heritage character. e.g in Corlette St and in Glebe Rd. For the 'village' character to be maintained there must be a clear boundary between commercial and residential and having residential right up close to shops etc helps retain this character. The strip of single storey character houses on the south side of Glebe road provides an interesting neat boundary to the 'village'. Glebe Rd is an entry thoroughfare to inner beachside Newcastle and as such its character needs to be preserved where possible.</td>
<td>1</td>
</tr>
<tr>
<td>These are an outstanding group of well maintained garden cottages that add to the character of The Junction. Ensure that all owners are fully aware of the proposal and its implications for maintenance and renovation before declaring the heritage area.</td>
<td>1</td>
</tr>
<tr>
<td>These properties warrant a heritage classification under a new HCA. With one exception, the character of the cottages between Robinsons Real Estate &amp; Arrivederci Restaurant is intact. The owners have respected the character &amp; streetscape of these cottages &amp; have kept them in a very well maintained state. Previously the residents strongly supported the retention of these homes &amp; opposed the proposed demolition of one of the cottages for redevelopment. Council's decision to reject the proposed demolition &amp; redevelopment &amp; to preserve the character of this small group of cottages was supported by an external judgement by a Heritage Consultant.</td>
<td>1</td>
</tr>
<tr>
<td>It may be possible to sympathetically build into the existing roof structures, set back from the streetscape as has happened with some dwellings in the Hamilton South Garden Suburb HCA. As long as the single story character is preserved with adequate set back within the roof line to preserve the heritage character of the homes then it may be suitable. Similarly it may be possible for garage roof structures to be extended to allow extra development within the roof space if the change is sympathetic to the character of the street. Such possibilities would need proper study &amp; consideration so that the heritage character would not be adversely impacted.</td>
<td>1</td>
</tr>
</tbody>
</table>
Do you own or rent property in the Newcastle East Heritage Conservation Area?

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
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<tr>
<td>NA</td>
<td>2</td>
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<tr>
<td>Citizen of Newcastle</td>
<td>1</td>
</tr>
<tr>
<td>considering buying</td>
<td>1</td>
</tr>
<tr>
<td>Frequent visitor</td>
<td>1</td>
</tr>
<tr>
<td>I am interested in this area</td>
<td>1</td>
</tr>
<tr>
<td>LGA resident and ratepayer</td>
<td>1</td>
</tr>
<tr>
<td>live nearby</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>The Hill</td>
<td>1</td>
</tr>
<tr>
<td>visited area almost daily</td>
<td>1</td>
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Are you a resident or business owner?

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
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</thead>
<tbody>
<tr>
<td>na</td>
<td>2</td>
</tr>
<tr>
<td>Citizen of Newcastle</td>
<td>1</td>
</tr>
<tr>
<td>considering residing</td>
<td>1</td>
</tr>
<tr>
<td>Frequent visitor</td>
<td>1</td>
</tr>
<tr>
<td>I am interested in this area</td>
<td>1</td>
</tr>
<tr>
<td>LGA resident &amp; ratepayer</td>
<td>1</td>
</tr>
<tr>
<td>neighbour</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>resident nearby</td>
<td>1</td>
</tr>
<tr>
<td>the Hill</td>
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OE_recommendationsCopy6. Do you have any further comments to make about the recommendation?

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
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</thead>
<tbody>
<tr>
<td>I support the amendment of the Heritage Technical Manual to include a revised statement of significance and new contributory buildings map for the Newcastle East Heritage Conservation Area.</td>
<td>1</td>
</tr>
<tr>
<td>Many of the buildings do not have heritage value. I question the value of grouping buildings by area. The cost/inconvenience of compliance can be prohibitive to real development</td>
<td>1</td>
</tr>
<tr>
<td>Newcastle East is becoming and vibrant and character filled part of the city. The streetscapes are looking great and I notice that more and more buildings are being done up and restored and adding to the heritage value and interest of the precinct.</td>
<td>1</td>
</tr>
<tr>
<td>Newcastle station should be included and protected</td>
<td>1</td>
</tr>
<tr>
<td>See previous comments</td>
<td>1</td>
</tr>
<tr>
<td>Should include Newcastle Station area, Watt St bothsides up to James Fletcher Hospital Area, Fletcher park out to Nobbys Headland</td>
<td>1</td>
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</tbody>
</table>

OE_recommendationsCopy7. Do you have any further comments to make about these recommendations?

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a resident of parkway ave for the past 16 years I value the quiet nature of our street. The last thing I want is increased traffic flow along parkway ave as it will decrease our property value and change our lifestyle</td>
<td>1</td>
</tr>
<tr>
<td>Ask residents what they want, not commuters. We are the ones who would have to put up with greater traffic noise and a fall in property values.</td>
<td>1</td>
</tr>
<tr>
<td>Clearly all such requirements ought to be subject to periodic review to establish if they still meet the needs of the affected community. It is imperative, however, that advice of any such review is widely disseminated in the affected community and that it is conducted openly.</td>
<td>1</td>
</tr>
<tr>
<td>Construction in Newcastle was ‘fast tracked’ by the previous Council and seemingly at the expense of future sustainable town planning. Its time to take a good look at just how many apartments Newcastle can reasonably accommodate and prevent this sprawl from impinging on neighbouring residential zones.</td>
<td>1</td>
</tr>
<tr>
<td>Council should be mindful of maintaining the integrity of HCA which IT has created.</td>
<td>1</td>
</tr>
<tr>
<td>Do Pull Down or removal Cavet should be Placed on all Items in the HCA area</td>
<td>1</td>
</tr>
<tr>
<td>Each Heritage Conservation Area has its own individual characteristics which is not covered by a one size fits all approach. The above survey points should be high priority to protect the heritage fabric in each different zone and to provide guidance &amp; certainty for individual owners, prospective owners, Council and the wider community.</td>
<td>1</td>
</tr>
</tbody>
</table>
I believe that most of the land is zoned residential, why change? 1

I do not want Parkway Avenue Hamilton changed in any way and especially no change to the median strip. 1

I don't believe zoning has been an issue in our area / experience but i do now understand after attending the info session how this could muddy the waters in some inner CBD applications. 1

I would potentially agree but I would need to understand the implications of this proposal. What are the land uses that need to be removed and which ones need to be added? 1

If more out of character developments are allowed the heritage character of the whole area will be lost
Considering the closeness to Tudor and Parry St and the St Francis Xavier high school and TAFE, more over or poor development in this area may well lead to the creation of an inner city ghetto, losing the current feeling of a well kept and connected community 1

If zoning was to be reviewed and any changes proposed would such changes be presented to residents for comment? 1

It is imperative that the low density zoning in the conservation area be retained. Demolition in all the inner suburbs surrounding the Hamilton South Heritage Area is proceeding at an alarming rate. Replacement buildings of blue board and cocked hat flat roofs is destroying the character of the original suburbs. This trend makes the preservation of the Hamilton South Heritage Conservation Area even more critical in retaining the ambience of the inner city. 1

It is possible to extend a house without changing its character (the extensions done to our home by a previous owner are a good example) - it just takes a bit more money to get a decent architect to do it properly, and the benefits to house value will be more than the cost. 1

Let's not ruin historic end of Newcastle with too much high rise and boxing in of open spaces. This does not align with the history and gentrification of Newcastle and Newcastle East particularly. Short term gain. Let's play the longer game for the future of the city. 1

Medium/ high density housing and commercial development should be prohibited in these areas. 1

More and more residential dwellings are being purchased within HCAs and converted into businesses such as specialist medical practitioner rooms even though there are ample vacant buildings in commercially zoned Hunter Street. The problem with this is that they often remove grass and gardens and replace with concrete carparks. Having on-site parking is a major contributing factor in the choice of an inner city residentially zoned dwelling over a commercially zoned one where parking limitations and ease of access are less attractive to patients. 1

More information needed. What do you want to change? 1

No 1

No changes to current zoning in HCA areas. 1

Not sure what this question means? however had to answer to move on. 1

Quite possibly, but I'm not sure. Certainly the lot sizes may require a refactoring of types of dwellings 1
and changes to dwellings that can take place, as well, advances in construction and contemporary technologies that can overcome previously difficult to solve problems should be considered as part of this (eg. noise attenuation/dampening, insulation, construction materials allowing more glass for natural light etc.).

| R3 (medium density) development is not appropriate in a Heritage Conservation area | 1 |
| Residential and commercial zones should be kept separate and multi-storey developments have no place within a HCA. | 1 |
| See previous comments | 1 |
| So long as Council abides by the significant heritage areas that are identified by such examinations and strongly protect the heritage fabric and integrity. | 1 |
| the above response is provided that the reviews of zones are consistent with protecting heritage value | 1 |
| The zones have been reviewed in recent years and reflect a high density area. They also comply with the SAFE criteria. The objective of the r3 zone reflects cooks hills high density nature. Outside of the city centre it is one of the LGAs highest density suburbs. See housing paper to LPS. If design, in particular height, is an issue that is a design issue- not a zone issue. Hense why heights and fsr now stay alone in the LEP. They should be captured via design controls. Cooks Hill reflects a true r3 zone. Should be be anything less it would mean that the zones are not being applied consistently and cause much confusion. If height is the issue then height should be addressed. I agree that the character of a HCA should be retained but this is not the correct planning mechanism. Perhaps advice from the department should be sort on using the zones that way. | 1 |
| The zoning should be maintained as residential with single residential properties. Multi storey apartments should be not allowed in the heritage areas, even dual occupancy on a single block as has been allowed in the past. | 1 |
| There is a definite conflict between the intention of the Hamilton South Garden Suburb area and the change in zoning that occurred. There should be NO medium residential zoning. | 1 |
| There needs to be regular contact between Council and the residents of HCAs to ensure that they are aware of the design principles and physical characteristics that contribute to the heritage status of their suburb or location. Unless this is done there will continue to be development proposals that conflict with the goals of maintaining the heritage fabric of the HCAs. In the case of Hamilton South HCA the intrusion of some second floor rooflines into the streetscape has impacted on the heritage quality of the location. There is a need for all Council Officers and any professional involved in planning approvals to be aware and involved in upholding the planning provisions underpinning the HVAs. | 1 |
| There seems to be a contradiction between having a HCA and then it is zoned for medium density. They do not work together. | 1 |
| This must be addressed now before the RMS comings in and buils another arterial route ruining our heritgate in that area for ever | 1 |
| Whatever outcome of the zoning examination it is extremely important to maintain and even extend (where possible) the open space availability. The health outcomes of residents is enhanced by the | 1 |
availability of open space. Once open space is lost it will never be replaced. Cities throughout the world are often recommended to visitors because of the open spaces that are available.

Zoning is of vital importance if the heritage significance of the character and streetscape of the heritage conservation areas is to be maintained. Zoning should reflect the existing built environment within the Heritage Conservation Areas. The northern length of Denison Street Hamilton is a good example of the way in which inappropriate zoning has ruined the ambience and amenity of a once-popular residential area with high quality housing stock, so discouraging inner-city living. This will be the eventual fate of all Heritage Conservation Areas if zonings do not reflect the existing character.

Additional comments. Do you have any additional comments regarding the Heritage conservation area review?

<table>
<thead>
<tr>
<th>Verbatim Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>- While we residents understand the need for medium density areas, there are plenty of nearby areas with no heritage building or community feeling (e.g. Denison St on the opposite side of Parry Street). Medium density should be focused in these areas, and our area returned to the residents. - Please address this additional area as a high priority, else it maybe too late</td>
<td>1</td>
</tr>
<tr>
<td>Any proposed change to an existing streetscape must be disseminated to the affected community well before its proposed implementation in a manner that clearly sets out what the real changes are.</td>
<td>1</td>
</tr>
<tr>
<td>As a resident of parkway ave for the past 16 years I strongly disagree with any additional traffic along parkway ave as it will decrease our property value and change our lifestyle</td>
<td>1</td>
</tr>
<tr>
<td>As a resident of Parkway Ave I have notice a significant increase in traffic carriage over the last 12 months on this street. Any further changes which increase traffic flow will be detrimental to the residential area.</td>
<td>1</td>
</tr>
<tr>
<td>Cooks Hill adds a unique character to the inner city. Many of the terraces housed miner and stevedores since early days. It is similar to the Rocks area which we know is tourist attraction in Sydney. We could have guided walking tours when cruise ships dock in Newcastle.</td>
<td>1</td>
</tr>
<tr>
<td>Council is already finding financial management difficult. If further impositions are placed on home owners then they too will be placed under greater financial duress.</td>
<td>1</td>
</tr>
<tr>
<td>Do not allow any more high density housing in the area. People live in this area because of the quiet lifestyle the area affords. Changing the character of the area will result in many residents being unhappy. Leave Parkway Avenue as it is. Do not widen it.</td>
<td>1</td>
</tr>
<tr>
<td>Do not alter Parkway Ave or its median strips at all if it's to remain a heritage area as previously stated.</td>
<td>1</td>
</tr>
<tr>
<td>Do not reduce any area for the reason of non-contributory buildings. If the area at Glebe Road is removed, whatever development it is replaced with will surely not comply with the requirements of developments adjacent to HCA's; such as the Bimet Lodge Development.</td>
<td>1</td>
</tr>
</tbody>
</table>
Don't change Parkway Avenue.
Make sure the light rail services as much of the attractions along the coast as it can, that way it can help cut the traffic in the area.

Following visual inspections of land parcels within the area any property that has had illegal extensions or additions within the area should be prosecuted. This would include the building of inappropriate fences, rendering of fences or houses without approval. Action should also be taken against the trades people if possible for building the structures etc without sighting the council approval.

Hamilton is quite unique, should be enhanced and believe it should be supported in someway without disadvantaging long term owner/occupiers (as myself)
Happy to have further consultation with NCC.
Please do not let some area/ streets become caravan/ truck parks !!

Has the review been funded by a developer? I am concerned that there is a two stage process occurring, whereby stage one is alteration of the boundaries to make way for stage 2, which would include rezoning of areas removed from the HCA.

I am concerned that the areas can be considered for removal from the HCA when the contain contributory buildings within that area.

Heritage listed areas should be changed to R2

thank you for surveying the public openly to make these changes, wish this had happened when changes where made in 2012 LEP

I believe it is important that not only the street heritage areas are maintained but the density of development in and adjacent to the area is limited to low density development so as not to overwhelm the importance of the areas

I believe that heritage conservation areas are important and believe that medium density development does not seem appropriate in a Heritage Conservation area.

I strongly object to Council agreeing to any RMS proposal to modify Parkway Avenue to allow it to have increased traffic volumes. Council should list Parkway Ave on the LEP to provide it with a higher degree of protection from current or future RMS plans and to maintain it in its current state.

I think it is a wonderful document that is well composed and easy to read. It will assist or guide future development. I like the categories and any design advice for future renovations/ Alts and ads was much needed. The character statements are great too. In my opinion in needs to address design issues rather than zoning. I don't believe a zone change would have any impact in future development is development respects design guidelines and applications are assessed by planners with heritage focus / knowledge.

I think that local people have been making decisions about their properties for over 100 years & our suburb has evolved accordingly. That gives the suburb its uniqueness in its own right. Do we need another layer of beauracracy to tell us how the next 100 years will turn out.

I think that the council have done, in the main, an excellent job maintaining the existing conservation areas. These areas are very important to Newcastle and help Newcastle maintain it charm and amenity. Remember that the whole of the Cook's Hill area was zoned high rise more than 40 years ago and the Cook's Hill

1
Community Group was able to convince the then Aldermen that the permission to do so would have been a very retrograde step. The conservation officer deserves credit for this.

I think that there should be a public meeting for residents of the respective HCAs for Council to address the anomalies which occur from time to time and in particular the median of Parkway Avenue which should remain intact in its entirety.

Heavy traffic in this area also needs to be addressed as it detracts from the amenity and the heritage values of the area.

I think the council would want to be very careful watering down any restrictions that are currently in place. I think previous surveys have demonstrated how highly people within current areas value the protections offered. Since some of the rules have been in place 20 years, they should not be a surprise to anyone. A relaxing of restrictions will favour a few developers but probably anger a large number of nearby residents. My experience has been that people have been allowed to increase the size of their property without ruining the streetscape which is a great result and has probably increased a sense of community rather than disputes.

I would prefer that controls not be imposed on the population in the proposed area. Heritage impositions limit the application of eco-design and eco-technologies.

Whilst the content of the draft report seeks to justify the Australian Agricultural Company and Pit Town to qualifying Criteria A and B for Cultural Significance Assessment, to the vast population of people residing in the precinct, if questioned they would lack any knowledge of this, and neither would they care. Whilst it is certainly fascinating, it lacks any legitimacy to genuinely supporting Criteria A and B. Criterion C remains true, but it is questionable if this by itself is enough to justify the imposition of HCA limitation to future changes within the precinct, particularly the risk to the village atmosphere this is likely to realise.

I would strongly urge council not to re-zone or remove any areas from the HCA as in doing so, may damage the aesthetics and heritage feel which is so important to this area. In addition it may affect resale value of property's in the HCA should any of the above changes take place.

I would remind council that any current HCA have previously been established by Newcastle City council in a bid to preserve our local history and cultural identity. Please leave it as is.

Is there any further information about how you can change your 'yellow' house to a green one? What plans are afoot to address the removal of 'red' houses?

It is essential that Council honours the intent of the Heritage Conservation Areas. Home owners and the wider community need guidance and certainty. Council needs to provide an adequate budget to allow for community education about HCA's and to allow Council to properly monitor compliance with the requirements of the HCA's. Rate notices, Council News mailouts and local free Newspapers are easy ways to spread information about the HCA's & to gain public support.

It is important to respect the current heritage buildings and conditions in place

It is not broken. Leave as is

It should be carried out as a matter of priority.

It would be interesting to know why the demolition of some lovely houses in Denison Street which has an
attractive streetscape was approved and some ugly townhouses approved with extremely limited parking approved in an area where parking is already at a premium. This suggests that much of this 'conservation' and 'heritage' bandied around Hamilton East is really not in Council's interest as there were many objections to this demolition and the fact that these houses could have been easily restored/renovated for families not necessarily wanting townhouses with their limitations.

Leave Parkway Avenue median strip at its current width. Do not use Parkway Avenue to funnel more traffic, the trees must remain with the grass median strip.

More and more residential dwellings are being purchased within HCAs and converted into businesses such as specialist medical practitioner rooms even though there are ample vacant buildings in commercially zoned Hunter Street. The problem with this is that they often remove grass and gardens and replace with concrete carparks. Having on-site parking is a major contributing factor in the choice of an inner city residentially zoned dwelling over a commercially zoned one where parking limitations and ease of access are less attractive to patients.

no obvious benefit to owners has been put forward. There is no improvement to services, no reduction in rates and only further restrictions on the use of my property.

Over the years it has been a puzzle to me how a hit and miss Council has been in its application of rules within all of these preservation zones.

If there's one thing that can't be replaced if it isn't protected and that is Parkway Avenue.

Please don't make any alterations to Parkway Avenue Hamilton.

Please keep Parkway Avenue as it is.

Please leave Parkway Avenue alone, this street should not be touched in anyway shape or form.

Please listen to the community. There have been too many recent instances where NCC have paid lip service with their community engagement process.

Example 1 - rates increase. The majority of community feedback was for accepting a mid-range rise. Yet NCC chose to ignore the feedback.

Example 2 - show holiday. The majority of community feedback was against the application for a show holiday. Yet NCC chose to ignore the feedback.

Having read the community responses from the previous Newcastle Voice survey, there is overwhelming support from the local community to increase protection regarding heritage conservation.

Listen to the community and act in accordance with their feedback.

Protect Newcastle if you want an attractive city and tourism and lifestyle for god sake.. Look around.. See other cities and be smart.. Please

removal of remaining garden beds which are planted with hibiscus which require constant pruning and removal time which would better spent under lopping pines .a true AVENUE is a roadway with trees planted on both sides this magical avenue starts at dennison street (ambulance station)thru to jenner parade (s/w drain) for further history on parkway avenue please ring
Residents have purchased homes in the heritage conservation because they wish to live this lifestyle and were aware of the guidelines required for extensions etc. we do not want rules changed and our neighbourhood to change. Particularly no changes to the road in parkway ie no cutting into the grassed medium strip, this should be maintained as is!

So much has already been Lost The need to protect What is Left is crucial

Newcastle has a serious Heritage History in the Fabric and development of Australia as an Identity Newcastle has can Lay Claim to many "Firsts" Most of them are in the area of concideration but needs widening

The area should be widened to include the other areas Like all of Nobbys Headland James Flethcer and the Newcastle Railway Area

Watt Street was the first Street in the first Settlement of Newcastle and Has a very significant Heritage significance Hunter or Blane Street has the Same significance and both show the development of Newcastle over time

Newcastle is unique and as the oportunity to attract people as a Specific and amazing Tourist Destination $$$$$$ Our Convict Roots have never be given the recogition that is well deserved. Lets get it right this time, its a Last Chance and hold development responsible to Protect and preseve with accountability to us the public who ultomately pay the price. there is so much we can do.

Speaking for Hamilton Garden Suburb only - I would be dismayed if any major changes were made to this beautiful suburb that is close to the CBD and the beach. We are very fortunate to have such a pleasing residential and school area, with its sporting facilities and parkland, and I would hate for any of this to change without careful consideration as to the consequences.

Thank you for looking at these heritage areas and working to protect them

Thanks for the opportunity to comment on this review. Can I suggest that if there are to be future community consultations that more notice including all the appropriate documentation be provided and more time be made available for your letter box drops to allow owners and residents to have sufficient notice to attend the meeting, many families need to arrange baby sitting, or postpone other commitments etc.

Let's hope the next meeting will be in cooler weather because the Yoga Room at the Community Centre in Gordon Avenue was extremely hot, one fan was insufficient! However I appreciate the effort your staff made to answer all the questions at the meeting.

The change of zoning to medium density of some of the HCA in the north east corner ie around Skelton and Heburn streets is in total conflict with the whole principle of the HCA concept.

The detailed review has taken considerable time and resources to complete and once feedback is received Council needs to act quickly to formalise any changes. Considerable 'damage' could be done to these areas in the meantime by current owners who wish to make changes to properties in advance of new guidelines
The document is very comprehensive and well presented. Congratulations.

The extra traffic in the area was not covered. Why is park land being used as a busy street? That is Smith St between Dumaresque St and Parry St.

The Heritage Conservation Area review should highlight the fact that one of the reasons places such as Cooks Hill, Hamilton East and The Hill are so popular is that they are defined by their built heritage. This is in contrast to the brashness and artificiality of much modern building stock and architectural design.

The poor administration of planning applications has resulted in the loss of some of the beautiful houses in the heritage areas. I hope that this does not continue.

The review has been very professionally prepared, the important issues addressed, with good and appropriate recommendations. Congratulations to all involved.

The whole review is a very comprehensive study of the existing and proposed Heritage Conservation Areas. It is important to balance sympathetic development opportunities with heritage conservation. Could I ask to receive a short response to why my property at __________ is included as a neutral building and not a contributing building please by __________. The facade of the property has an interwar addition but it is mostly in tact. The recent additions made around 2005 are well hidden at the rear of the dwelling.

there Must be another public forum for the Hamilton South Garden Suburb area as the flyer notifying the residents of the public meeting was not distributed to the area until 24 hours after the meeting. This is totally unacceptable and whether it was the council or their contractors which were negligent in this matter is irrelevant. It is the council's responsibility to give adequate notice. This matter is too important.

There should be street trees planted in the area Hamilton is now an area that you cannot walk in the summer.

The pavement is not keeping with a heritage area.

The traffic in the proposed area particularly turning from Gordon to James St. A heritage area should be quieter and not a through traffic area for peaceful existence.

This review has come a little too late for some of the residents in the Hamilton East area who just last year fought strongly to oppose a 3 story mixed commercial residential development which sits within the block that you are proposing to now include in the heritage conservation area. I hope that the 50+ submissions that were put forward in opposition of such developments, in order to maintain our heritage landscape, are considered. Many of these people I'm sure are a little disillusioned as a result of council voting to approve the development __________ Dennison St Hamilton East and as a result may not participate in this survey.

Wake up Jeff!
Yeah, I know it's too late, but I believe this is another example of the damage done by him and his cronies whilst on the council.

We have lost two of the three avenues that were critical to the original Garden Suburb worldwide strategy envisaged by __________.
<table>
<thead>
<tr>
<th><strong>The key Garden Suburb entry stones have been removed to Learmonth Park and should be relocated to indicate the original Garden Suburb precinct and the arrival to such area.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The two areas lost are Gordon Avenue and Stewart Avenue, the remaining intact Avenue known as Parkway Avenue must be maintained in its original and current form without further alteration.</strong></td>
</tr>
<tr>
<td><strong>We have only recently purchased in this area and would not have purchased a property in a heritage conservation area because of the restrictions.</strong></td>
</tr>
<tr>
<td><strong>We need to protect the character of these areas.</strong></td>
</tr>
<tr>
<td><strong>Why remove only this part of Glebe road will this give developers the chance to go ahead with big townhouse construction in place of the homes already there we know some houses have already been given the OK to go we strongly object</strong></td>
</tr>
<tr>
<td><strong>Yes need to look at how ‘outside’ agencies such as Ausgrid, Telstra etc seem to be able to build / change infrastructure that distracts from heritage buildings / streetscape - seems they can do this without abiding / consulting Council. Heritage conservation is a key attraction to inner suburb Newcastle and is part of a key attraction to this city and needs to be preserved as much as possible</strong></td>
</tr>
</tbody>
</table>
Appendix III - Information session notes

Heritage Information Session 1

Questions

- A lot of development occurring - particularly second floor developments - all need to be aware of steps taken in HCAs.
- Concerned - any development changed - could impact drainage - particularly, Cram St.
- Removing HCA could open up to development in pocket park - Robertson Reserve.
- Concern that Ausgrid does not appear to need development consent to erect large poles in the front yards of houses in the heritage conservation area.
- What does the changing of density from med to low mean for Cooks Hill?
- depressed when he looks around the street because of unpainted fascia spoils the area and lack of maintenance to properties.
- People aren't doing the right thing to preserve the HCA.
- Want more engagement from Council. What they can and can't do.
- HCA residents need to know what their responsibilities are.
- The integrity of the areas are being compromised.
- Can you explain to the people of southern side of Cram St - What can be developed there? What scales etc.
- Does that mean you can build something like the Bimet Lodge - that was allowed - does that mean that it opens us up to that.
- Unsolicited 2 storey blocks went ahead - put in objection. - HCA - Why did they allow lego house - concerned don't want to end up with buildings out of heritage scope.
- Changes on Glebe Rd now - disagrees removing and changing to medium density - will degrade the amenity of these areas.
- You will be under pressure by developers- streets are already changing - lack of on-street parking - increasing density - need to consider flow on effects including parking.
- Glebe Rd - fighting to keep amenity.
- Collin Green report - residents very strongly want to keep findings.
- Boundaries are hard when one side of the street are in the areas - creates confusion - make it whole areas.
- What is the advantage of taking away the areas - good for developers but seems like a step back.
- Change occurring where people are in bigger houses - with fewer people in them.
- Beaumont St - fully agree with removal. Do we still need to leave a submission if we agree with change.
- Parkway Avenue - wants to know about the right hand turn lane.
- Can any other Governments override the decisions made?

Information Session 2

- Majority of participants received invites this week.
- 3 attendees didn’t receive invite at all.

Questions

- Who makes the decisions?
- Why can’t the community make the decision?
- How binding are the results?
- What’s the benefit of being in a zone and what are the negatives?
- Has the DCP been implemented and changed yet?
- Need to get the clarification right for Cooks Hill - worried that yellow will be removed - contributory.
- The DCP is pretty weak - how does the Heritage manual fall?
- Are you going to have a separate DCP for each area? - So they are targeted.
- You see developments getting put through that don’t fit the character - how does this happen?
- Who makes the decision that something is contributory?
- Will council make the decision for me? I want to have a say whether my home is contributory or not. I have a retirement plan.
- Confusion about Garden South boundary - community member wants to make it clear that this area absorbs into Hamilton East.
- Sections of Carona St - implications for single story domestic dwellings - council needs to look at the applicable zoning and whether medium density R3 is impacting heritage.
- Bimet Lodge consequences, if you remove heritage areas.
- Can we expect any improvements in street scape - trees - traffic calming footpaths?
- If you live in proposed area - what if I wanted to knock it down?
- How does it impact lanes at the back?
- What are the confines of the submission - does it apply to other areas?
- Carona St - Catholic School owned land - Graffiti - removal - store paints worried it will be developed.
- DA - council workers should attend (mentioned to Ashlee)
Heritage Information Session 3

Questions
- Are there contributory maps in review?
- How do you go to the page on Council page?
- Zoning- R3 in Hamilton East, We will end up with a Bimet Lodge.
- Private Certifier risk - no requirement to go to Council - DA Team.
- Tree choice - asked Sarah to talk about the tree choices in HCA.
- Tree trimmings - lost trees - strategic tree plantings required.
- Bruce St - Trees - figs removed from Cooks Hill - want replacements.
- Disappointed no contributory for new proposed areas.
- How can it be declared a heritage area (High St) with so many ugly buildings? How can they become heritage?
- Frustrating - that this is a result of poor council planning.
- Confusion about the maps.
- Carona St garden beds have been improved
- Residence - contributory - what does it mean if you are next a non-contributory?
- Impact of HCA will you make us have contributory enforced.
APPENDIX B -

SUMMARY OF FORMAL WRITTEN SUBMISSIONS MADE DURING EXHIBITION PERIOD
The consultation process has been extensive including a six-week exhibition period. Feedback has been collected in two forms including formal written submissions and a community survey conducted by Newcastle Voice.

A total of 87 formal submissions were received including submissions from the Heritage Division of the NSW Office of Environment and Heritage, the NSW Roads and Maritime Services, the National Trust Hunter Region Committee, and the Cooks Hill Community Group Inc.

Of these submissions, forty five were presented as a form letter expressing opposition to the proposed removal of part of the Hamilton South Garden Suburb HCA.

The majority of the concerns raised in the submissions (over 50) focussed on the proposed removal of part of the Hamilton South Garden Suburb Area at Glebe Road. Residents have expressed the view that removal would potentially compromise the HCA by enabling medium density development along Glebe Road. The view was also strongly expressed that the community is in favour of making Parkway Avenue a heritage item in Schedule 5 of the Newcastle LEP. The final recommendation is that Council proceed with the listing of Parkway Avenue as a heritage item in the LEP but not proceed with the removal of the Glebe Road section of the HCA.

Concerns were raised regarding the removal of the Hamilton Business Centre HCA as a view was expressed that doing so would undermine the efforts of Hamilton businesses and community members to acknowledge and recognise the cultural and social importance of the area. The team concurs with this view and is therefore recommending that the removal of the HCA not proceed at this time in view of these comments.

There was general agreement in the written submissions to the proposed extension of the Hamilton South Garden Suburb to include the north side of Denison Street and Ada Street.

Several submissions suggested that Council reactivate a local heritage grant scheme. Such an initiative is supported but needs to be considered in the Management Plan. One submission commented that council demonstrates support for heritage areas through such schemes.

The extension to the Hill HCA is generally supported and the majority of written submissions and the Newcastle Voice survey results are in support of this proposal. There were two submissions made expressing the view that the extension is not justified on heritage grounds however the large majority are comfortable with the proposal and it is recommended to proceed.
CCL 28/06/16
HERITAGE CONSERVATION AREA REVIEW PROJECT

Attachment B: Summary of Submissions and Council Response

DISTRIBUTED UNDER SEPARATE COVER
## Attachment B - Summary of Submissions and Council Response

<table>
<thead>
<tr>
<th>No.</th>
<th>Issues raised</th>
<th>Council response</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Ausgrid poles stuck in front yard of heritage properties distracts from streetscape. Council should impose restrictions on electricity providers to make sure the poles are not an eye sore.</td>
<td>Issue referred to Ausgrid. Will need to obtain legal advice to understand if Council can impose regulations on electricity suppliers in HCAs.</td>
</tr>
<tr>
<td>2</td>
<td>Reactivate heritage grants for heritage areas to show Council support.</td>
<td>This would need to be considered as part of Council's delivery planning and budget for 2017-18.</td>
</tr>
</tbody>
</table>
| 3   | 1. I am in favour of heritage protection for proposed Hamilton Residential HCA.  
2. Unique dwellings types make a special character for this area. It should be protected. A base stock of single storey timber dwellings is special, many double storey free standard terraces, double storey free standing and adjoining Victoria terraces, large stock of single storey brick dwellings from 1870-end of WW1. Character will be threatened if demolitions are allowed. Did a survey of heritage significance in 2005, this still stands as there has been little change. Based on survey, the whole of central Hamilton should have protection orders. | The creation of the Hamilton Residential HCA is supported.  
New DCP controls and heritage technical manual provisions will be aimed at protecting the character of each HCA.                                                                 |
| 4   | 1. Beaumont Street should stay a HCA.  
2. Supports the expanded boundary for HS HCA to include Denison St.  
3. Generally supportive of conservation areas for Hamilton.  
4. Can the garden beds in Hamilton end of Parkway Ave be re-instated?  
5. Parking a major problem in Parkway Ave - can Council implement parking management.  
6. Cooks Hill and The Hill should remain HCAs. | Beaumont Street HCA will remain and expanded boundary for Hamilton South HCA supported. Cooks Hill and The Hill will remain HCAs.  
Garden beds / parking outside the scope of this review. Parking and planting issues referred to relevant sections of Council for consideration.                                                                                             |
| 5   | 1. General agreement with the promotion of conservation by identifying potential heritage, raising community awareness, establishing and managing heritage zones.  
2. Disagree with extending Hill HCA based on lack of significance. Don't agree there is sufficient character to warrant extension. House at 12 The Terrace is an illegal boarding house. Council does not manage existing HCAs well. | Noted.  
The report recommends extending The Hill HCA on the basis of the character, significance and streetscape qualities this area.                                                                                                      |
<p>| 6   | RMS intends to improve safety at intersection of Parkway and Stewart Avenues in 15/16. RMS notes the recommendation to make Parkway Ave a heritage item. RMS will do an environmental impact assessment to consider heritage values of area. RMS is confident the intersection can be improved without impacting on heritage. | Noted.                                                                                                                                                                                                                               |</p>
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<tr>
<td>7</td>
<td>Surprised that Council is fiddling with heritage boundaries. Planning should provide certainty. Changing the boundary will remove certainty. Development at 202 and 206 Glebe Rd is inconsistent with the heritage of the area. Dissatisfied that the brochure arrived after the meeting on 8/02/2016.</td>
<td>Noted.</td>
</tr>
</tbody>
</table>
| 8   | 1. Support the proposed extension of HCAs.  
2. Support the creation of new HCAs.  
3. Oppose deleting or changing boundaries to HCAs. HCAs assist in preserving character, local pride, identity, attractive for tourism, make planners consider development more carefully. | Noted. HCA Review Report in general agreement. |
| 9   | 1. Support the extension of the HCA for the Hill.  
2. Traffic calming needed in High Street.  
3. Enough extant significant dwellings to support a HCA in this area. | Noted.           |
| 10  | 1. Sceptical of Council's attitude to heritage buildings and areas.  
2. Construction of Aventine with towers has changed the character of Tyrrell St.  
3. Council went against heritage officer's advice by allowing Robinson to demolish at Glebe Road, The Junction and erect monstrosity. Neighbours allowed by Council to cover 90% of yard with building affecting solar access for neighbours. | Noted.           |
| 11  | 1. Oppose removing any of the Garden Suburb HCA.  
2. Support the other proposal becoming part of Hamilton South Garden Suburb HCA. | Noted. Hamilton South HCA boundary will not be reduced. |
| 12  | 1. Diocese owns large land holdings to the east of proposed Hamilton Residential HCA.  
2. Diocese currently preparing a master plan for its land holding. What impact would the proposal have on the concept master plan? | Information about HCAs and their implications was emailed to the Diocese in response to the questions raised. |
| 13  | 1. Consider plantings for footpaths and central bay in Parkway Ave.  
2. Consider parking restrictions for Ada Ave.  
3. Need street markings on corner of Corona, Everton and Parkway Ave.  
| 14  | 1. Cooks Hill has unique character and history.  
2. Private certifiers are not protecting or appreciating heritage mix in Cooks Hill.  
3. More trees needed but not under power lines.  
4. Infill should be compatible in proportions and materials but not pale imitations. | Noted.           |
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</table>
| 15  | 1. Opposed to removal of areas, including Glebe Road section.  
2. Supportive of including additional areas in heritage area as housing stock is rare and should be protected.                                      | Noted. Final HCA report consistent with comments.                                                                                                                                                                |
<p>| 16  | Vision Australia is supportive of the proposed removal of the Hamilton Beaumont Street HCA.                                                                                                                      | Noted however the majority of respondents requested the HCA remain and that is the final recommendation.                                                                                                       |
| 17  | I do not support the proposed heritage conservation area for Hamilton.                                                                                                                                          | Noted however most respondents supported the creation of the new HCA. The assessment of heritage significance concluded that the area should be protected in an HCA.                                               |
| 18  | Comments are in relation to Hamilton South - opposed to removal of Glebe Road section. There are no grounds to remove part of Glebe Road from the HCA, and it will create traffic and amenity impacts if allowed to proceed. | The Glebe Road section is recommended in the final report to remain.                                                                                                                                           |
| 19  | Comments are in relation to Hamilton South - opposed to removal of Glebe Road section. The Church and hall are both heritage items so removing the HCA would undermine these items. Parking issues could result if medium density was to be approved along Glebe Road. | The Glebe Road section is recommended in the final report to remain.                                                                                                                                              |
| 20  | The current R3 zone in our northern end of the Hamilton South HCA is in conflict with the HCA objectives. Would like to see it changed to R2 to reflect the low density of the Garden Suburb. We were not notified when the zone was changed to R3 and we believe it will extinguish heritage preservation and character. We believe very strongly the R3 zone for HSGS HCA should be changed to R2 to reflect garden suburb low density. | Zoning investigation was outside the scope of this study.                                                                                                                                                        |
| 21  | Report is silent on any new development should fit with the character of the existing HCAs. The report should include provisions that if buildings are developed in any way, be it neutral, contributory or non-contributory, should be designed to fit character. Cooks Hill people feel very strongly that the character of Cooks Hill should be preserved. | Proposed DCP and Heritage Technical Manual provisions are aimed at protecting character of HCAs.                                                                                                               |
| 22  | Support in the strongest possible terms the proposed listing of Parkway Avenue as a landscape heritage item in Schedule 5 of the NLEP 2012.                                                                      | Final report contains this recommendation.                                                                                                                                                                     |
| 23  | I live in Lemnos Parade and support the proposed extension of the boundary of the Hill HCA to include my street. I would like to see the whole of east side of Lemnos Parade added in as there are contributory houses there - including 2 &amp; 4 Anzac Parade, but 20 Bingle appears to be incorrectly identified but it should be non-contributory or neutral. Other contributory buildings are - 11 Anzac Parade, 19 Lemnos Parade (aka 9 Anzac Parade), 17 Lemnos Parade (aka 7 Anzac Parade), and 11 Lemnos (aka 1 Anzac Parade). Contributory in Lemnos Parade are No 1, no 3, no 5, no 9. No 7 Lemnos is non-contributory or neutral. | Noted. Contributory building map for The Hill will be reviewed to correct the levels.                                                                                                                            |</p>
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<td>24</td>
<td>I support the extension of HSGS HCA into Denison, Ada and Parkway Avenue.</td>
<td>The final report contains this recommendation.</td>
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<td>25</td>
<td>I support the removal of the Hamilton Business Area HCA. Do no support listing the kerbs and gutters as heritage items.</td>
<td>The majority of respondents requested that the Hamilton Business Area HCA remain. The final report does not recommend listing the sandstone kerbs and gutters.</td>
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<td>26</td>
<td>All properties in the HSGS HCA should be zoned low density residential to be protected from future development. Council should consider listing the Gordon Avenue Bus Depot in the HCA (by moving the boundary) or make it a heritage item. A few years ago a visiting brick expert from UK remarked on the superior brickwork and complexity of design. No 73 Gordon Ave is non-contributory, it is incorrectly noted as contributory. I support the listing of the proposed Hamilton Residential HCA. 34 Gordon Avenue merits heritage listing. I think there are houses in Gordon Avenue that need to be protected but will fall in neither the HSGS HCA or the proposed Hamilton. Council should look at including them in the HCAs.</td>
<td>Comments are noted. Contributory map will be reviewed amend if necessary 73 Gordon Avenue. Will consider listing the bus depot in a future review.</td>
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<td>27</td>
<td>Do not support the proposed Hamilton residential HCA as it is not as significant as the garden suburb and it has no style to preserve, there are many new houses. I do not want to be encumbered by Council red tape through a heritage listing when doing maintenance to my home.</td>
<td>Comments are not supported by the evidence obtained from the HCA review process. There is no evidence that heritage conservation area controls create red tape or add restrictions. Maintenance and repairs are exempt development.</td>
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<td>28</td>
<td>We are firm supporters of the proposed Glebe road cottages HCA as proposed by Council but we believe the current medium density zone should be maintained. We believe all HCAs complement the streetscape and assist in maintaining the heritage significance of the areas. Can Council put line markings on the driveways of houses and better sign posting.</td>
<td>Noted. Zoning will be the subject of a separate review. Traffic management request forwarded to Traffic section.</td>
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<td>29</td>
<td>1. Support the removal of the Hamilton Business Centre from the LEP. 2. Most pleased to support the proposed Hamilton residential HCA as the area is highly intact. Has good examples of Victorian, Federation and Inter-War building stock. 3. I support the heritage listing of the houses at 18, 32 and 34 Gordon Ave Hamilton. They are excellent examples of Edwardian architecture in Newcastle. 4. I strongly support the creation of a new HCA for the Glebe Road Federation cottages. I agree that locality specific controls be devised to preserve this group. This group should be zoned R2 to not allow surrounding dwellings to impact them. 5. The 1997 City Wide Heritage Study recommendations for other HCAs around Newcastle should be implemented.</td>
<td>Noted. Zoning will be subject of a separate review. The final report recommends retaining the Hamilton Business Centre HCA in line with the majority of respondents' wishes. Future work will consider the 1997 Heritage Study recommendations.</td>
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<td>I voice my no confidence in the HCA review as Council has failed to reply to my questions and has had nearly 2 months to respond. DA 15/0876 shows Council's lack of regard for Cooks Hill HCA values and this is an over development Council is allowing to happen. These DAs should not be allowed. Council's concern for heritage values is smoke and mirrors.</td>
<td>Noted.</td>
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<td>31</td>
<td>I do not support the revoking of the Hamilton Beaumont Street HCA as proposed. I have a strong interest in local history and my work on the Hidden Hamilton blog confirms that there is a huge amount of interest in the ethnic history and cultural diversity and history of Beaumont Street. It should be recognised that heritage is not just about buildings but your report focusses on these at the expense of other values such as social and cultural values. Removing the heritage listing sends a message that heritage is only about buildings and not about the rich social and cultural heritage of Beaumont Street that has been ignored in the report. Hamilton has important multicultural links. Lifting of the HCA is not consistent with Council's 2030 Strategic Plan and shows no support for the work of the Hamilton Business Camber. I support the proposed listing of the sandstone kerbing, also support making Parkway Ave a heritage item, also support the proposed Hamilton Res HCA, as long as the DCP guidelines allow residents to make changes to accommodate an aging population.</td>
<td>The removal of the Hamilton Beaumont Street HCA should not proceed at the current time further review to look at social and cultural values, especially, multicultural significance.</td>
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<td>76</td>
<td>We strongly object to the proposed boundary change and removal of Glebe Road from the HS GS HCA. This will change the visual street view, impact traffic volumes, and density conflicts.</td>
<td>This is no longer a recommendation of the review report.</td>
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<td>77</td>
<td>I support the proposed extension of the HSGSHCA to include Denison Street, Ada Street and part of Parkway Avenue. I think the zonings need to be carefully looked at to make sure character is preserved.</td>
<td>This is recommended in the Review report. Zoning is a subject of a separate project.</td>
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<td>78</td>
<td>NSW Heritage Division acknowledges the work that Council has done to protect, identify and manage heritage and the Council is to be commended for that. We note that the Hamilton Beaumont St HCA does not contain any state heritage but it is noted that the Hamilton Station is a heritage item of state significance and is on the boundary of the HCA. We would like to comment on any planning proposals should they arise from the report.</td>
<td>Noted. Any Planning proposals that arise would be referred to OEH as a matter of course.</td>
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<td>79</td>
<td>We own a large property which fronts High Street but want to subdivide it in the future. We do not oppose the proposed HCA extension for the Hill but request that it does not include the Memorial Drive lot.</td>
<td>Noted. The boundary as proposed in the draft review report has not been amended in the final as the property warrants inclusion in the Hill HCA. Any application for subdivision would be considered on its merits.</td>
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<td>80</td>
<td>CH Community Group believes that the contributory mapping contains some inaccuracies. Needs to be reviewed. We do not support the removal of part of Darby Street. We support the extended area east of Brooks Street.</td>
<td>Noted. Contact will be made with the CHCG to understand what buildings are incorrectly identified.</td>
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<td>I own 8 Devon Street Hamilton and do not support the proposed Hamilton Heritage Conservation Area. My house is simplistic and basic. It has been renovated and had a new kitchen and bathroom added. The area needs to be developed to enable better access to the train service. Devon Street is not impressive and has no significant dwellings. Disagree that 8 Devon Street is contributory.</td>
<td>Noted. Comment that 8 Devon Street is not contributory is not supported by evidence and has been re-checked. It is a contributory building.</td>
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<td>82</td>
<td>Our house at 3 High Street is a timber cottage and is the only remaining structure in High Street that has not been redeveloped or renovated. My family has delayed plans to demolish. Council had previously rejected a proposal to make High Street a HCA and should again reject this proposal. The streetscape is unappealing owing to the redevelopment that has occurred. Do not support the proposed extension of the Hill HCA.</td>
<td>Review has found a high degree of heritage significance and so the comments are not supported. Demolition would need to be assessed under a development application and even if it does not become a HCA would still need to meet objectives regarding character and streetscape.</td>
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<td>83</td>
<td>I have supported the Hamilton South HCA since Meredith Walker's work in 1985. Sarah Cameron has done excellent work and is congratulated on the draft report. I agree disagree [sic] with the removal of part of Glebe Road from HS HCA, I strongly agree with the inclusion of Ada and Denison Street to the HS HCA, I strongly disagree that Parkway Avenue should be listed as a heritage item, I agree with specific guidelines for Hamilton South. Parkway Ave is the last remaining intact boulevard from the Garden Suburb designed by Sulman, whole length should be a heritage item in the LEP. Any changes to the median, trees, original dwellings, streetscape of Parkway Avenue are not supported. I agree that Hamilton South Garden Suburb HCA should be low density.</td>
<td>Noted. Final report will reflect that the entire length of Parkway Avenue to Bar Beach to be listed as a heritage item.</td>
</tr>
<tr>
<td>84</td>
<td>I support retaining the Hamilton Beaumont Street HCA, which includes my house. I believe that the area west of Beaumont Street should be a heritage conservation area and listed as is proposed for the east side of Beaumont Street. A major problem is the replacement of dwelling verandahs and fronts with garages - this is a major concern affecting the strongly pedestrian character of Hamilton, creating a loss of street surveillance and wide vehicle crossings. This is not appropriate for inner city locations with 6-7 metre frontages and reduces the availability of on-street parking. More appropriate development guidelines should be provided.</td>
<td>Comment supported. Hamilton Beaumont Street will not be excised as proposed in draft report. Specific development guidelines are to focus on the narrow width of these lots and be specific for Hamilton. Future consideration should be given to HCA for west side of Beaumont Street.</td>
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<td>We strongly support the report and its recommendations and we believe the community and ratepayers also broadly support heritage as is evidenced in the previous Newcastle Voice community surveys. We support - proposed Hamilton Residential HCA, proposed Junction federation cottages HCA, proposed additions to the Hill HCA, Cooks Hill HCA and Hamilton South Garden Suburb HCA. We support the removal of the Darby Street section from Cooks Hill but St Hildas Hostel should be contributory and stay in the boundary. We strongly support the heritage listing of the entire street Parkway Avenue as the best example of a boulevard with strong links to Sulman and Hennessey. We strongly oppose removing the Glebe Road section from the Hamilton South Garden Suburb. We oppose removing Beaumont Street from the LEP as a HCA and we don’t agree that a convincing argument has been made to support its removal. We strongly support chapter 8 on planning framework. Both sides of Smith Street should be in the HSGSHCA. We disagree with some of the calls made re contributory buildings. Unauthorised alterations should be followed up by Council compliance staff as these are affecting character and integrity. Owners should be better informed about heritage obligations. Educational pamphlets could be prepared.</td>
<td>Comments noted. Many points incorporated into final review report.</td>
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<td>86</td>
<td>General comments on what is contributory and non contributory. Hamilton Business Chamber may wish to review the contributory and non contributory list.</td>
<td>Comments noted.</td>
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<tr>
<td>87</td>
<td>Issues locating survey</td>
<td>Resolved.</td>
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