Business Paper

Shire Infrastructure Committee

Monday, 2 July 2018
6.30pm

Committee Rooms 203 and 204,
Level 2, Administration Building,
4-20 Eton Street, Sutherland
ORDER OF BUSINESS

1. ACKNOWLEDGEMENT OF COUNTRY

2. APOLOGIES

3. DISCLOSURES OF INTEREST

4. CONFIRMATION OF MINUTES OF THE PREVIOUS MEETINGS

5. PRESENTATIONS

6. REPORTS FROM OFFICERS
   INF031-18 Graffiti Management Policy Review
   INF032-18 Major Infrastructure Projects Review
   INF033-18 Portable Speed Warning Signs Pilot Program
   INF034-18 Moreton Road, Wilbung Road and Osprey Drive, Illawong - Road Safety
   Follow Up Report
   INF035-18 Recycled Plastiphalt Road Pavement - Demonstration

7. QUESTIONS

8. CONSIDERATION OF BUSINESS IN CLOSED SESSION

9. CONFIDENTIAL REPORTS FROM OFFICERS
EXECUTIVE SUMMARY

- The Graffiti Management Policy is reviewed on a biennial basis. Changes have been made to better reflect the Graffiti Control Act (2008) and to articulate Council's key outcomes, principles and actions for preventing, minimising and removing incidents of graffiti vandalism.

- A Graffiti Management Guideline has been created to support, enhance and expand on the Policy.

- The ongoing implementation and improvement of the Policy framework will ensure Council and the community can effectively respond to graffiti vandalism.

- Council's current Policy (adopted in 2005) is framed around graffiti removal. The revised Policy been expanded to include the management and treatment of graffiti vandalism, in-line with the Act (2008) and current best practice

REPORT RECOMMENDATION

That the revised Graffiti Management Policy (attached as Appendix A) be adopted.
PURPOSE
The purpose of this report is to seek adoption of the revised Graffiti Management Policy and the Graffiti Management Guideline that has been created to support and enhance the Policy.

BACKGROUND
Graffiti vandalism is illegal and an offence under the Graffiti Control Act (2008). Council’s Graffiti Management Policy was adopted by Council at a Works & Emergency Services Committee (WKS194-05) in May, 2005. Since its adoption, the Policy has been reviewed annually with minimal changes. The current Policy focussed on graffiti removal and articulates Council’s response times for non-offensive and offensive graffiti to Council and non-Council property whereas the revised policy sets out a framework to manage Graffiti in-line with the Graffiti Control Act and current best practice.

DISCUSSION
Graffiti vandalism is a widespread issue that has proven hard for Council to prevent and minimise. In public places it tends to lend itself to a perception of poor safety and has a financial impact, with Council spending over $300,000 per year on preventative initiatives and ongoing maintenance program to report and remove. It is widely recognised (NSW Police, other NSW Councils) that a multi-faceted holistic and collaborative approach needs to be employed to effectively combat this issue.

Council accepts that while it does not have sufficient resources to remove graffiti from non-Council owned property, it will:

- Lobby, assist, form partnerships with other stakeholders and encourage other parties to remove graffiti from their property
- Work in partnership with key stakeholders to identify strategies to prevent and minimise incidents of graffiti vandalism, including identifying appropriate locations and processes for the placement of public art.

Policy Review:
A review of the graffiti prevention measures from Wollongong, Georges River, Inner West, Waverley and City of Sydney Council revealed all Councils shared the similar prevention strategies and clean up and removal procedures to Council. Noting that rapid removal of graffiti is still viewed as the most effective means of preventing reoccurrence.

The following was also reviewed:
- Graffiti Control Act (2008)
- Council’s Graffiti Management Policy
- Council’s graffiti strategies, initiatives and operational protocols.
Revised Policy:
A revised Policy (Appendix A) and framework has now been created for the management and treatment of graffiti vandalism, in-line with the Act (2008) and current best practice.

The intended outcomes of the Policy are to:
- Prevent and minimise incidents of graffiti vandalism within the Shire
- Reduce the social, environmental and economic impact of graffiti vandalism
- Provide Council and the community with an effective framework to respond
- Enhance community confidence and perception of safety.

Graffiti Management Guideline:
To support and enhance the Policy, a Graffiti Management Guideline has been created. The guideline expands on the Policy’s key outcomes, principles and highlights Council’s commitment to partnering with the community, other agencies, private property owners and NSW Police to reduce the social, environmental and economic impact of graffiti vandalism. It also provides situational analysis and outlines initiatives and actions that have or will be employed by Council going forward.

The key actions that will be used to support the Policy are:
1. **Graffiti Prevention** – Via engagement and education, partnerships with key stakeholders and Crime Prevention through Environmental Design (CPTED) principles.
2. **Graffiti Reporting** – To Council, other Agencies and NSW Police.
3. **Graffiti Removal** – Via undertaking rapid removal of graffiti vandalism.
4. **Prosecution** – Support the apprehension and prosecution of graffiti vandals.

Review Team:
The Policy review and revised Policy and Guideline development was carried out in collaboration with a range of key stakeholders, including:
- Economic & Community Development
- Public Safety & Lifeguards
- Legal & Governance
- Building Assets
- NSW Police/ Local Area Command (LAC).

Identified Risks:
Graffiti management presents various risks to Council, such as, compliance, financial and reputational. However, it is envisaged that the revised Graffiti Management Policy and supporting Graffiti Management Guideline will assist in reducing these risks. As Council and the community will have a sound framework for managing graffiti. Ensuring resources are directed to effective responses.
RESOURCING STRATEGY IMPLICATIONS
The subject matter of this report is the responsibility of the Building Operations Unit utilising existing recurrent budget provisions.

COMMUNITY ENGAGEMENT
The revised Graffiti Management Policy and Guideline are aimed at enhancing community confidence and perception of safety by outlining Council’s commitment and approach to dealing with this issue.

The revised Policy and Guideline will be made available to the community through Council’s website.

STRATEGIC ALIGNMENT
The Graffiti Management Policy and Guideline has been created to support the community’s aspirations of a liveable place with a high quality of life and enhanced public safety.

<table>
<thead>
<tr>
<th>Community Strategic Plan Strategy</th>
<th>Delivery Program (2017-2021) Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Liveable Place with a High Quality of Life (Outcome 6).</td>
<td>6D – Enhance safety and accessibility through a range of programs and partnerships.</td>
</tr>
</tbody>
</table>

POLICY AND LEGISLATIVE REQUIREMENTS

Other Relevant Legislation:
- Local Government Act 1993 (NSW)
- Crimes Act 1900.

CONCLUSION
The proposed changes to the Graffiti Management Policy ensure that Council meets its requirements under the Graffiti Control Act (2008). The revised Policy and Guideline provide Council and the community with an effective framework to prevent and respond to incidents of graffiti vandalism.

It is therefore recommended that the revised Policy and Guideline be adopted.

RESPONSIBLE OFFICER
The officer responsible for the preparation of this Report is the Manager Building Operations, Aaron Leahy, who can be contacted on 8536 2202.

File Number: 2015/44771
GRAFFITI MANAGEMENT POLICY
June 2018

PREPARED BY:
OPERATIONAL SERVICES
## DOCUMENT REVIEW AND APPROVAL

This document has been approved by:

<table>
<thead>
<tr>
<th>Approved by</th>
<th>Minute No.</th>
<th>Date Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Works &amp; Emergency Services Committee WKS194-05</td>
<td>1176</td>
<td>9 May 2005</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Revision history:

<table>
<thead>
<tr>
<th>Version</th>
<th>Author</th>
<th>Date</th>
<th>Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Director Engineering</td>
<td>26 April 2005</td>
<td>Original Version</td>
</tr>
<tr>
<td>2.</td>
<td>Group Manager Engineering</td>
<td>28 February 2012</td>
<td>Reviewed, no changes necessary</td>
</tr>
<tr>
<td></td>
<td>Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Group Manager Engineering</td>
<td>14 January 2013</td>
<td>Reviewed, no changes necessary</td>
</tr>
<tr>
<td></td>
<td>Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Group Manager Engineering</td>
<td>4 March 2014</td>
<td>Reviewed, no changes necessary. Requires some expansion which will occur in the next 12 months.</td>
</tr>
<tr>
<td></td>
<td>Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Group Manager Engineering</td>
<td>6 March 2015</td>
<td>Reviewed as part of the annual review process, clarification of removal of graffiti from private property.</td>
</tr>
<tr>
<td></td>
<td>Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Manager Building</td>
<td>14 May 2018</td>
<td>Revised to better reflect the Graffiti Control Act (2008) and Council’s graffiti management approach.</td>
</tr>
<tr>
<td></td>
<td>Operations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CONTENT

1. PURPOSE ..................................................................................................................... 4
2. APPLICATION ................................................................................................................. 4
3. DEFINITIONS .................................................................................................................. 4
4. PRINCIPLES ................................................................................................................... 4
5. RELEVANT LEGISLATION .............................................................................................. 5
6. RELATED AND ASSOCIATED COUNCIL POLICY AND PROCEDURES .................. 5
7. RESPONSIBLE OFFICER ............................................................................................... 5
8. RESPONSIBILITIES ....................................................................................................... 5
9. MONITORING ................................................................................................................ 6
10. REVIEW DATE .............................................................................................................. 6
11. RECORD KEEPING, CONFIDENTIALITY AND PRIVACY ........................................... 6
12. BREACHES AND SANCTIONS ...................................................................................... 6
APPENDIX A: GRAFFITI REMOVAL – SERVICE STANDARD ........................................ 7
1. PURPOSE

The Graffiti Management Policy represents Council’s management and treatment of graffiti including property owned by Council, private property and property owned by other government departments and agencies within the Sutherland Shire.

The intended outcomes of the Policy are to:

- Prevent and minimise incidents of graffiti vandalism within the Shire
- Reduce the social, environmental and economic impact of graffiti vandalism
- Provide Council and the community with an effective framework to respond
- Enhance community confidence and perception of safety.

2. APPLICATION

The Policy applies to all people who live, work or visit the Sutherland Shire, and to property that is owned by Council, and also non-Council owned property.

3. DEFINITIONS

Graffiti Vandalism: Is the damaging or defacing of property, by means of chalk, scratching, paint, felt tip markers or other materials, including the unauthorised placement of bill posters. It is illegal and an offence under the Graffiti Control Act (2008).

4. PRINCIPLES

Council has identified and endorses the following Policy principles:

- Council believes that graffiti vandalism detracts from the visual amenity of the public domain and views the unauthorised placement of bill posters as a form of graffiti
- Council supports the apprehension and prosecution of graffiti vandals
- Council appreciates that graffiti prevention and removal is the responsibility of all levels of government, as well as private residents, businesses and utility owners
- Council accepts that while it does not have sufficient resources to remove graffiti from non-council owned property, it will lobby, assist, form partnerships with other stakeholders and encourage other parties to remove graffiti from their property
- Council will work in partnership with key stakeholders to identify appropriate locations and processes for the placement of public art
- Council is committed to a pro-active program of inspection, reporting and the rapid removal of graffiti from Council owned property

Graffiti Management Policy
5. RELEVANT LEGISLATION
The Graffiti Control Act (2008) is the legislative framework that underpins Council's Graffiti Management Policy.

Other Relevant Legislation:
- Local Government Act 1993 (NSW)
- Crimes Act 1900.

6. RELATED AND ASSOCIATED COUNCIL POLICY AND PROCEDURES
- Community Strategic Plan (10 year)
- Graffiti Management Guideline
- Anti-Social Behaviour Strategy
- Crime Prevention Plan
- Vandalism Reward Scheme Determination and Procedures.

7. RESPONSIBLE OFFICER
- The Group Manager, Operational Services will be responsible for the implementation of the Policy.
- The Manager Building Operations will be responsible for ensuring that graffiti prevention, removal and reporting is undertaken in-line with the Policy, this includes:
  - Ensuring sufficient funding to undertake graffiti removal
  - Measuring and reporting on the effectiveness of Council's approach.

8. RESPONSIBILITIES
- Council: Council is responsible for recording reported incidents of vandalism and for removing it from its property.
- Directors: Directors are responsible for ensuring their Division adheres to the requirements of this Policy and provide guidance in respect of enhancing safety in the public domain through a range of programs and partnerships within their division and the organisation.
- Staff: Staff must adhere to the requirements of this Policy and operate within the relevant authorities.
9. **MONITORING**
   The Manager of Building Operations will monitor, review and report on the effectiveness of the Policy.

10. **REVIEW DATE**
    This Policy will be reviewed on a biennial basis from the date of adoption by Council, or in response to legislative and statutory requirements.

11. **RECORD KEEPING, CONFIDENTIALITY AND PRIVACY**

12. **BREACHES AND SANCTIONS**
    Breaches of this Policy will be dealt with in accordance with normal procedures and will be advised to the Director Shire Infrastructure or the General Manager.
Appendix A: Graffiti Removal – Service Standard

Council Property:
All graffiti vandalism to Council property that is reported will be removed.

Non-Council Property:
Offensive graffiti vandalism that is reported will be removed from non-Council property in circumstances where the graffiti:

(i) is visible from a public place
(ii) is able to be accessed safely and removed from the surface to which it is applied without the need to enter private property.

Non-offensive graffiti vandalism that is reported will be offered to be removed by Council at the asset owner's/occupier's consent and cost.

Removal Response:

<table>
<thead>
<tr>
<th>Graffiti Type</th>
<th>Timeframe to Respond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offensive graffiti (rude/offensive words, symbols, bill postings) on Council and non-Council property.</td>
<td>Where possible, will be removed within 2 days of it being reported to Council.</td>
</tr>
<tr>
<td>Non-offensive graffiti (tags, stencils, uncommissioned murals, bill postings) on Council property.</td>
<td>Where possible, will be removed within 7 days of it being reported to Council.</td>
</tr>
</tbody>
</table>

Graffiti Removal Register
The Graffiti Control Act (2008) requires all Councils to keep a register of all graffiti removal work that is undertaken. Council uses the Australian Graffiti Register (AUSGR) to do this.
EXECUTIVE SUMMARY

- This is a regular report to the Infrastructure Committee to provide an update on Council’s major projects.
- The report covers the status of projects valued in excess of $750,000.

REPORT RECOMMENDATION

That the report “Major Infrastructure Project Review” be received and noted.
PURPOSE
This report is a requirement of the Infrastructure Committee which has requested that a report on major projects be provided to the committee every alternate round.

BACKGROUND
The attached report identifies the following:

- Capital Project expenditure to date (overall and for individual projects);
- Brief description of each project;
- Provides a brief status update on each project;
- Indicates where the project is along the project timeline.

DISCUSSION
This report deals with major infrastructure projects, defined as $750,000 or more in total value allocation for 2017/18 financial year and provides brief narrative on the status of the projects.

Although not specifically included in the 2017/18 budget the following projects have been included due to the interest Council has in them:

- Sutherland School of Arts Upgrade
- Sutherland Entertainment Centre Upgrade
- Cronulla Plaza Upgrade Works (Stage 2)
- Cronulla Park Surf Life Saving Club Frontage Works
- Old Ferry Road Reserve Upgrade Stage 2

RESOURCING STRATEGY IMPLICATIONS
The Resourcing Strategy implications for variations in the Capital Program are usually dealt with via specific reports to Council or in Quarterly Budget Reviews such as GOV 025-18. These relate to re-phasing and or savings attributed to the individual projects.

COMMUNITY ENGAGEMENT
Community engagement is generally first undertaken at the design development stage of the major project. Engagement continues via various means as outlined in the specific project communication strategy. Reputational risk is closed tied to the quality of the engagement.

Council at its meeting held 21 May 2018 amongst other things resolved that:

“The report be made available on the Council website to allow the community to view the progress of major projects”

Arrangements are in place for the open publication of this report.
STRATEGIC ALIGNMENT
The delivery of major infrastructure projects can be found in many sections of the Delivery Program. The most significant projects are identified in their own right in the Delivery Program and supporting Operational Plan.

<table>
<thead>
<tr>
<th>Community Strategic Plan Strategy</th>
<th>Delivery Program (2017-2021) Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4 Ensure community confidence in Sutherland Shire Council.</td>
<td>1G.7 Deliver planned capital works program for Buildings.</td>
</tr>
<tr>
<td>2.3 Protect our beaches, rivers and oceans.</td>
<td>2G.5 Deliver planned capital works program for Stormwater infrastructure.</td>
</tr>
<tr>
<td>4.2 Maintain and enhance our cultural facilities.</td>
<td>4G.1 progress business case for the redevelopment of the Sutherland Entertainment Centre as a Regional Performing Arts venue.</td>
</tr>
<tr>
<td>6.1 Plan and develop integrated transport networks to provide transport choices which allow people to get around in a safe, accessible and efficient manner.</td>
<td>6A.5 Deliver planned capital works program for transport and traffic infrastructure.</td>
</tr>
<tr>
<td>6.3 Provide welcoming, safe and accessible places and spaces that encourage active lifestyles</td>
<td>6E.1 develop a business case for Cronulla Public Domain Masterplan</td>
</tr>
<tr>
<td></td>
<td>6E.2 Deliver Ocean Grove modernisation works</td>
</tr>
<tr>
<td></td>
<td>6F.6 Deliver planned capital works program for open space infrastructure</td>
</tr>
<tr>
<td></td>
<td>6H.5 Water Play park constructed at Sutherland leisure Centre</td>
</tr>
</tbody>
</table>

POLICY AND LEGISLATIVE REQUIREMENTS
Section 8B of the Local Government Act 1993, in particular Section 8B (b), deals with the provision and management of infrastructure within a sustainable financial framework.

CONCLUSION
The reporting on major projects is an important governance matter for the elected Council and will be the subject of continuing regular reports to the committee.

RESPONSIBLE OFFICER
The officer responsible for the preparation of this Report is the Manager - Project Services, Veri Ermers, who can be contacted on 9710 0232.

File Number: 2015/44222
### Progress Chart

<table>
<thead>
<tr>
<th>Phase</th>
<th>No Projects</th>
<th>Budget</th>
<th>Actual</th>
<th>Commencement</th>
<th>Auth</th>
<th>Exp N</th>
<th>Movement in projects</th>
<th>Phase</th>
<th>No of projects</th>
<th>Cost variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>29</td>
<td>3,830,700</td>
<td>282,604</td>
<td>193,093</td>
<td>20%</td>
<td>20%</td>
<td>-</td>
<td>9</td>
<td>457</td>
<td>-15%</td>
</tr>
<tr>
<td>Statutory Approvals</td>
<td>7</td>
<td>5,195</td>
<td>5,000</td>
<td>-</td>
<td>2%</td>
<td>2%</td>
<td>-</td>
<td>7</td>
<td>140</td>
<td>-15%</td>
</tr>
<tr>
<td>Procurement</td>
<td>25</td>
<td>3,552,805</td>
<td>230,940</td>
<td>482,344</td>
<td>20%</td>
<td>20%</td>
<td>-</td>
<td>25</td>
<td>482,344</td>
<td>-15%</td>
</tr>
<tr>
<td>Delivery</td>
<td>90</td>
<td>16,935,010</td>
<td>11,584,350</td>
<td>3,351,005</td>
<td>72%</td>
<td>35%</td>
<td>+3</td>
<td>90</td>
<td>16,935,010</td>
<td>-15%</td>
</tr>
<tr>
<td>Maintenance Period</td>
<td>32</td>
<td>4,452,962</td>
<td>3,994,220</td>
<td>222,019</td>
<td>92%</td>
<td>90%</td>
<td>-</td>
<td>32</td>
<td>3,994,220</td>
<td>-15%</td>
</tr>
<tr>
<td>Earmark</td>
<td>140</td>
<td>6,059,652</td>
<td>6,964,935</td>
<td>1,905,285</td>
<td>70%</td>
<td>50%</td>
<td>-</td>
<td>140</td>
<td>6,059,652</td>
<td>-15%</td>
</tr>
<tr>
<td>Cancelled</td>
<td>5</td>
<td>8,347</td>
<td>9,736</td>
<td>-</td>
<td>8%</td>
<td>8%</td>
<td>+4</td>
<td>5</td>
<td>9,736</td>
<td>-15%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>457</td>
<td>46,086,117</td>
<td>35,265,767</td>
<td>8,820,351</td>
<td>64%</td>
<td>82%</td>
<td>-</td>
<td>457</td>
<td>46,086,117</td>
<td>-15%</td>
</tr>
</tbody>
</table>

**Project Status Report: Infrastructure Division (projects over $750,000)**
## Projects Status

(Status of all current projects can be viewed through Compass page on Project Insight)

*Please Note: March Budget Review adjustments have been reflected within this report.*

### MAJOR PROJECTS COMPLETED 2017/2018

*Whole of project costs shown*

<table>
<thead>
<tr>
<th>Project Description</th>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Ridge Off Road Bike Park [177100]</td>
<td>$1,105,487</td>
<td>$1,056,785</td>
<td>$12,333</td>
<td>Works complete. Maintenance works on landscaping continues by Toolijoo.</td>
</tr>
<tr>
<td></td>
<td>Contractor:</td>
<td>World Trolls, Councils' Civil Ops, Landmark, Toolijoo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scylla Bay - Como Jannali RLFC Replacement and amenities building [155230]</td>
<td>$1,611,917</td>
<td>$1,596,994</td>
<td>$1,441</td>
<td>Works Complete.</td>
</tr>
<tr>
<td></td>
<td>Contractor:</td>
<td>AXIS Constructions P/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barden Ridge Park 150 Old Illawarra Road (155220)</td>
<td>$741,221</td>
<td>$685,064</td>
<td>$24,110</td>
<td>Works Complete, additional works being undertaken. Auscape continuing with renovations to garden beds, fencing to be installed. Moduplay to relocate a few items as requested by Playground Inspector</td>
</tr>
<tr>
<td></td>
<td>Contractor:</td>
<td>Auscape</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Project Status Report: Infrastructure Division (projects over $750,000)  
Page 2 of 10
### Greenhills Hockey Field Construction Stage 1B [178100 / GH0002]
Design and construction of two synthetic Hockey Field facilities with ancillary services.

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4,760,089</td>
<td>$4,726,821</td>
<td>$25,042</td>
</tr>
</tbody>
</table>

**Contractor**
Frasers Property Group, Breen Holdings, Peninsular Fields & Polytan

**Status**
The Certificate of Practical Completion was achieved on 5 April 2018. Site opened 7 April 2018.

*Initiate Planning/Design Procurement Delivery Complete Maintenance /DLP*

### Greenhills Hockey Amenities Building Stage 1B [178200 / GH0003]
Design and construction of the Amenities Building to service the new Hockey Fields 2 and 3 @ Stage 1B.

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$790,780</td>
<td>$745,094</td>
<td>$9,090</td>
</tr>
</tbody>
</table>

**Contractor**
 Momentum Built P/L

**Status**
The Certificate of Practical Completion was achieved. Site opened 7 April 2018

*Initiate Planning/Design Procurement Delivery Complete Maintenance /DLP*

### Woolooware Bay Shared Pathway [140960]
Initiation, Design and Delivery of Woolooware Bay Shared Pathway Stage 6: Woolooware Shores to Atkinson Road, Taren Point.

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6,440,616</td>
<td>$5,892,802</td>
<td>$291,861</td>
</tr>
</tbody>
</table>

**Contractor**
Antoun Civil Engineering Pty Ltd, HDSA Group

**Status**
Official opening occurred for 14th April 2018. Works on the sand island continue.

*Initiate Planning/Design Procurement Delivery Complete Maintenance /DLP*
Sylvania Shopping Centre Upgrade – Investigation and Design [143191]
The investigation and design for modernization of the Sylvania Shopping Centre (east side of Princes Highway).

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,096,279</td>
<td>$1,405,999</td>
<td>$1,205</td>
</tr>
</tbody>
</table>

**Contractor**: QMC

**Status**: Contractors works have been completed. Council is removing the trees from the contract and is replacing dead trees.

216 Belgreave Esplanade, Sylvania: Seawall Replacement [178000 / BM0006]
Existing concrete seawalls throughout Sylvania Waters have reached the end of their design life and their service life and are progressively failing, requiring replacement. Council is responsible for seawalls within public land. The seawall replacement works will include pre-cast concrete shoring panels installed into the seabed and reinforced concrete capping beams anchored back into the land with structural fortifications on both sides of the road bridge.

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,536,910</td>
<td>$1,404,947</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Contractor**: BNS Landscapes

**Study Period**: In progress - July/March

**Status**: All contract and variation works now completed. Defects inspections and rectifications completed. Contractor has been granted PC. Sydney Water upgrade of vacuum sewer mains completed.

Roger Summers Playground Stage II – Bundeena [178600]

Improvements to public amenity in Brighton Street, Bundeena with construction of an elevated footpath on the western side adjacent to Roger Summers Reserve, associated landscape works including park pathways, steps, earthworks and reconstruction of Horderns Creek Seawall.

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,991,598</td>
<td>$1,946,291</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Contractor**: Breñia P/L

**Status**: The project is complete, final invoices paid and savings recovered by Business Support.
### Silver Beach Pathway - Stage 3 west [145000]
Construction of a shared path from the catamaran club car park to Balboa Street, as part of the Silver Beach Masterplan works.

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$465,192</td>
<td>$415,658</td>
<td>$9,762</td>
</tr>
</tbody>
</table>

**Contractor**: Simpsons Landscapes  
**Status**: All works have now been completed and Practical completion reached on 9th February 2018.

### Scylla Bay boat ramp and pontoon upgrade [152190]
Upgrade of boat ramp and new pontoon as part of RMS Boating Now grant program.

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$787,796</td>
<td>$755,813</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Contractor**: Land & Marine P/L  
**Status**: Additional works needed adjacent to old wharf to complement the project. Quotations to be sought for additional landscaping.

### Burnum Burnum boat ramp upgrade [152220]
The existing boat ramp and adjoining car park is being upgraded. The proposal includes new pontoon, extension to the boat ramp, development of a bioswale and wetland, and formalising the adjoining car park.

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$984,860</td>
<td>$927,100</td>
<td>$22,840</td>
</tr>
</tbody>
</table>

**Contractor**: Land & Marine P/L  
**Status**: Works complete, period with substantial maintenance in progress.
### Waratah AFL/cricket field (Lincoln oval) - Development to Regional AFL facility [154291]
Upgrade of playing surface including field lighting and irrigation system and pedestrian fencing in conjunction with the AFL’s upgrade of the amenities building and clubhouse.

<table>
<thead>
<tr>
<th></th>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor</td>
<td>Sportz Lighting (lighting) &amp; Renworx (field &amp; irrigation)</td>
<td>$1,176,053</td>
<td>$1,128,117</td>
<td>$17,334</td>
</tr>
<tr>
<td>Status</td>
<td>Complete. Field open for public use 11 December 2017.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Drainage Investigation - 231-237 Prices Circuit, Woronora [156460]
The project is to investigate the capacity & condition of the existing drainage network and recommend remedial measures.

<table>
<thead>
<tr>
<th></th>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor</td>
<td>Council’s Civil Operations Unit</td>
<td>$1,126,852</td>
<td>$1,107,174</td>
<td>$0</td>
</tr>
<tr>
<td>Status</td>
<td>Complete</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Project Status Report: Infrastructure Division (projects over $750,000)  Page 6 of 10
## MAJOR PROJECTS TO BE COMPLETED 2017/2018

### Sylvania Waters Dredging [155240]
Council has an obligation to maintain the navigational channels of Sylvania Waters

- **TPV Estimate**: $788,220 (increase to $3.5M TBC)
- **Actuals**: $78,339
- **Committed**: $0

**Contractor**: TBA

**Status** – Council is undertaking negotiations with a contractor with the view of dredging Sylvania Waters and disposing of dredged material offshore. The RFQ is being updated in order to acquire the Part 5 approval. The soil testing is being updated to meet Federal Govt disposal at sea license requirements. The full planning and approvals process is expected to be completed by November.

### Sandy Point Rural Fire Station (161471)
Replacement of the existing Rural Fire Service Building at Sandy Point with a new facility.

- **TPV Estimate**: $1,574,113
- **Actuals**: $1,071,372
- **Committed**: $419,480

**Contractor**: Michael Camporeale Builders

**Status** – Works are nearing completion. Minor works, defects, certification and final clean to complete.

### Ocean Grove Ave - Renewal - Cronulla Plaza - Stage 1 [163080]
Modification of Ocean Grove Avenue Plaza. Local adjoining development has facilitated an opportunity to renew this section of open space within the Cronulla CBD plaza.

- **TPV Estimate**: $2,035,183
- **Actuals**: $1,711,893
- **Committed**: $340,384

**Contractor**: Council’s Civil Operations Unit

**Status** – Paving works completed by end of June. Custom street furniture is expected by end of July.
Rawson Avenue On Road Cycle Lane Stage 2 (149800)
Construction of kerb and gutter, parking bays and pedestrian footpath (western side), on-road cycle facility and shared pathway (eastern side) on Rawson Avenue between Park Street and the Sutherland Leisure Centre Roundabout.

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,176,695</td>
<td>$712,098</td>
<td>$83,636</td>
</tr>
</tbody>
</table>

Contractor: Sutherland Shire Council Civil Operations Unit

Status: Final road resurfacing, asphalt works is due to commence on 27th May – 30th May for both stage 1 and stage 2 works from President Avenue to the roundabout (Aquatic Centre entrance). The shared pathway running parallel to Rawson Ave has been completed with back filling of soil and mulch being undertaken. Turf will soon be ordered and minor landscape works undertaken near the Aquatic Centre Car Park remain.

<table>
<thead>
<tr>
<th>Initiate</th>
<th>Planning/Design</th>
<th>Procurement</th>
<th>Delivery</th>
<th>Complete</th>
<th>Maintenance /DLP</th>
</tr>
</thead>
</table>

Sutherland Leisure Centre Water Fun Play Park (162940)
Installation of a water fun play park on the north western side of the SLC adjacent the Utility Pool and the Olympic Pool embankment.

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,560,000</td>
<td>$573,805</td>
<td>$944,287</td>
</tr>
</tbody>
</table>

Contractor: Beauparc

Status: Civil ground works, formwork, structural, services and plantroom construction underway.

<table>
<thead>
<tr>
<th>Initiate</th>
<th>Planning/Design</th>
<th>Procurement</th>
<th>Delivery</th>
<th>Complete</th>
<th>Maintenance /DLP</th>
</tr>
</thead>
</table>
### MAJOR PROJECTS COMMENCING/UNDER CONSIDERATION FOR 2018/19

*Unless of project costs shown*

<table>
<thead>
<tr>
<th>Project Details</th>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Old Ferry Road Reserve Upgrade Stage 2 (151221)</strong></td>
<td>$1,005,000</td>
<td>$139,947</td>
<td>$11,605</td>
<td></td>
</tr>
<tr>
<td>Council has endorsed a masterplan which proposes a complete upgrade of the vacant lot at the end of Old Ferry Road, Illawong. The upgrade will include a new car park, picnic area, kayak launching facility and boat pick-up and drop-off point. The facility will be the first of its kind and known as a SCLIF (Small Craft Low Impact Facility) which is intended to be rolled out by Council in other areas where small watercraft access is available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractor: TBA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status: Civil Design has been completed. Electrical design has been submitted to Ausgrid. Crown confirmed license to undertake the work in December. Acid Sulphate Test report revealed that the project area is contaminated. An action plan has been developed for remediation. Tender documents commenced.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initiate</th>
<th>Planning/Design</th>
<th>Procurement</th>
<th>Delivery</th>
<th>Complete</th>
<th>Maintenance /DLP</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Project Details</th>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cronulla Park Surf Life Saving Club Frontage Works (design) (175080)</strong></td>
<td>$40,000</td>
<td>$32,401</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>The Cronulla Surf Life Saving Club are refurbishing the clubhouse. This project is for consideration and design of frontage works for the Cronulla surf Club upgrade. A master plan approach is proposed with detailed design focusing on the interface of the building and park at the rear of the building.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractor: Sutherland Shire Council Design Services Unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status: Design Under way. Working to resolve waste management issues. Works are programed to be undertaken concurrently with the CSLSC Upgrade works. Likely Delivery Winter 2019.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initiate</th>
<th>Planning/Design</th>
<th>Procurement</th>
<th>Delivery</th>
<th>Complete</th>
<th>Maintenance /DLP</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Project Details</th>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cronulla Plaza Upgrade Works (stage 2: Cronulla Plaza and Mall) (156110)</strong></td>
<td>(TBC)</td>
<td>$0</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>Upgrade of Cronulla Plaza and Mall along with the provision of an amenities block to be located in the southern end of the CBD.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractor: TBA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status: The project scope is being defined in order to prepare a cost estimate of the detailed design.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initiate</th>
<th>Planning/Design</th>
<th>Procurement</th>
<th>Delivery</th>
<th>Complete</th>
<th>Maintenance /DLP</th>
</tr>
</thead>
</table>
### Sutherland Entertainment Centre Upgrade (201690)

Upgrade of the existing Entertainment Centre to improve functionality, service offerings, DDA compliance, and whole of life efficiency

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$23,861,000 (TBC)</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Contractor:** TBA

**Status:** Council has resolved to undertake the upgrade. Pre-commencement leadup is being undertaken. SE018-18 further report on School of Arts by June 2018

<table>
<thead>
<tr>
<th>Initiate</th>
<th>Planning/Design</th>
<th>Procurement</th>
<th>Delivery</th>
<th>Complete</th>
<th>Maintenance / DLP</th>
</tr>
</thead>
</table>

### Sutherland School of Arts - Upgrade (201660)

Renovation and Upgrade of the School of Arts

<table>
<thead>
<tr>
<th>TPV Estimate</th>
<th>Actuals</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,760,000 (TBC)</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Contractor:** TBA

**Status:** Scope and program to be defined. Conservation Management Plan (CMP) and Building Code of Australia reports are required.

<table>
<thead>
<tr>
<th>Initiate</th>
<th>Planning/Design</th>
<th>Procurement</th>
<th>Delivery</th>
<th>Complete</th>
<th>Maintenance / DLP</th>
</tr>
</thead>
</table>
Attachments: Nil

EXECUTIVE SUMMARY

- Council has run a six month trial of portable speed warning signs located at three sites.
- Speed reductions ranging from 7% to 21% have been recorded.
- The trial appears to have been well received by the community and is worthy of continued support and expansion.
- Additional signs can be purchased at a cost of $6,500 each and signs can be relocated to new sites at a cost of $2,000 per move.

REPORT RECOMMENDATION

THAT:

1. The success of the Portable Speed Warning Sign trial be noted.

2. Two additional portable speed warning signs be purchased.

3. Each speed warning sign be installed at three locations each year as determined by the Sutherland Traffic and Traffic Safety Committee.

4. Traffic speeds be monitored following the removal of signs to determine the length of time for which speed reductions are sustained.
PURPOSE
To apprise Council of the results of the Portable Speed Warning Sign trial, to suggest that a permanent program be established and to suggest that Council acquire additional signs to increase the reach of the program.

BACKGROUND
Following consideration of Report No. INF007-18 at its meeting of 17 August 2017, Council resolved to:

- Establish a pilot program for a six month trial of three portable speed warning signs at Fowler Road Illawong (residential area), Waratah Street Sutherland (school zone) and Lantana Road Engadine (local shopping strip).
- Receive a report on the results of the trial, the identification of additional sites and budgetary implications.

The signs were installed in December 2017.

DISCUSSION
The speed reductions recorded during the trial are summarised in the following table:

<table>
<thead>
<tr>
<th>Location</th>
<th>Fowler Rd Illawong (Residential)</th>
<th>Lantana Rd Engadine (Local Shopping Strip)</th>
<th>Waratah St Sutherland (School Zone)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-trial Speed</td>
<td></td>
<td>AM school zone</td>
</tr>
<tr>
<td></td>
<td>70km/h</td>
<td></td>
<td>57km/h</td>
</tr>
<tr>
<td></td>
<td>During trial speed</td>
<td></td>
<td>PM school zone</td>
</tr>
<tr>
<td></td>
<td>55km/h</td>
<td></td>
<td>52km/h</td>
</tr>
<tr>
<td></td>
<td>Average speed reduction</td>
<td></td>
<td>Other times</td>
</tr>
<tr>
<td></td>
<td>15km/h</td>
<td></td>
<td>58km/h</td>
</tr>
<tr>
<td></td>
<td>Percentage speed reduction</td>
<td></td>
<td>54km/h</td>
</tr>
<tr>
<td></td>
<td>21%</td>
<td></td>
<td>4km/h</td>
</tr>
</tbody>
</table>

All speeds are the 85th percentile speeds

Speed data was downloaded at two weekly intervals during the trial and showed no decrease in the effectiveness of the signs in lowering speeds over the course of the trial.

The effectiveness of the signs in reducing traffic speeds supports the adoption of a permanent, expanded program. The purchase of two additional signs would give a total of five signs and the deployment of each sign to three sites each year would enable fifteen sites per annum to benefit from the deployment of the signs.
A number of additional sites have been proposed and three sites have been identified for installation of Council’s existing signs following an assessment of factors including:

- Traffic speed readings to determine the degree of speeding
- Visual impact on surrounding residents
- Sight lines to the signs (presence of obstructions such as trees, power poles and existing traffic signs)
- Clearance to driveways and utility service pits
- Clearance to low-hanging power and telecommunications cables
- Adequacy of solar access to the sign’s solar panels
- Separation from other signs to ensure that motorists have sufficient time to read messages

The sites identified are Carter Road Menai, Sturt Road Cronulla and Cooriengah Heights Road Engadine. Council’s existing signs have been relocated to these sites.

RESOURCING STRATEGY IMPLICATIONS
The funds required to purchase two additional portable speed signs and to relocate five signs to three locations in the 2018/19 financial year amount to $45,000.

The on-going cost of the program based on five signs moved to three locations each year with depreciation of signs at 10% will be $35,000p.a.

The program can be funded using existing recurrent RMS traffic facilities block grants.

COMMUNITY ENGAGEMENT
The Sutherland Shire Consultative Traffic Forum has expressed support for the deployment of portable speed warning signs.

Residents are consulted on the location of any proposed signs within the nature strip adjoining their property.

The portable speed warning sign trial has been well received by the community and is expected to continue to be so.

STRATEGIC ALIGNMENT

<table>
<thead>
<tr>
<th>Community Strategic Plan Strategy</th>
<th>Delivery Program (2017-2021) Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1.4 Plan, advocate and provide effective road networks</td>
<td>6D Enhance safety and accessibility in the public domain.</td>
</tr>
</tbody>
</table>
POLICY AND LEGISLATIVE REQUIREMENTS
The proposed portable speed warning sign program aligns with Council’s vision for a connected and safe community.

CONCLUSION
The Portable Speed Warning Sign Trial has shown that the signs are effective in reducing speeding. This finding is consistent with those of other local government bodies. Portable speed warning signs are a practical and relatively inexpensive alternative to conventional measures used to improve road safety such as speed enforcement and infrastructure solutions used to control traffic speeds. They cannot be deployed at all sites experiencing excessive traffic speeds due to physical constraints on their siting and should be seen as one of a number of ways to improve road safety at trouble spots.

Adopting an ongoing program will enable the signs to be deployed where appropriate.

RESPONSIBLE OFFICER
The officer responsible for the preparation of this Report is the Manager-Traffic and Public Domain Services/Executive Engineer, Mario Sherrie, who can be contacted on 9710 0503.

File Number: 2015/82190
EXECUTIVE SUMMARY

- Following investigations into a fatal car crash in Moreton Road, Illawong in April 2017 the Sutherland Traffic and Traffic Safety Committee endorsed a proposal that advanced curve warning signage be installed in Moreton Road and that line marking treatment be applied in Moreton Road, Wilbung Road and Osprey Drive, Illawong.
- Council has sought an update on the success of traffic calming measures in the vicinity of Moreton Road.
- Traffic speed data collected before the implementation of traffic calming measures and in May 2018 shows a modest reduction in traffic speeds.
- Traffic speeds are considered to be acceptable.

REPORT RECOMMENDATION

THAT:

1. The report on the impact of traffic calming measures in the vicinity of Moreton Road Illawong be received and noted.

2. No further traffic calming measures be implemented in the vicinity of Moreton Road, Illawong, at this time.
PURPOSE
This report informs Council of the success of traffic calming measures implemented in Moreton Road, Wilbung Road and Osprey Drive, Illawong, after six months in operation.

BACKGROUND
Council has for some time received complaints from residents, regarding ‘rat-run’ traffic using a route consisting of Osprey Drive, Wilbung Road, Moreton Road and Blaxland Drive to bypass Fowler Road. The resident reports have included concerns about speeding in general and ‘hoon’ driving. The roads are collector roads.

Previous investigations into these claims revealed the following:

- The daily traffic volumes along this route were well within the expected range for collector roads;
- The 85th percentile speed was not considered excessive in comparison to other similar roads in Sutherland Shire; and
- There was no significant crash history along this route.

However, following a fatal motor vehicle crash in April 2017 in Moreton Road, Illawong, Council, at its meeting of 15 May 2017, resolved via MOT027-17 that a report on the road safety of traffic in Moreton Road, Osprey Drive and surrounding streets be tabled at the Sutherland Traffic and Traffic Safety Committee.

A report, CTF006-18, was submitted to the 6 October 2017 meeting of the Consultative Traffic Forum, outlining the findings of the investigations post April 2017. The report recommended the following traffic calming treatments:

- Centreline marking in Osprey Drive, between Fowler Road and Wilbung Road;
- Centreline marking in Wilbung Road, between Osprey Drive and Moreton Road;
- TB Holding line and edge line, and No Stopping line treatments in Moreton Road at Northbrook Place; and
- Advanced curve warning sign in Moreton Road on the eastbound approach to Northbrook Place

Following consideration of report STR039-18, at its 3 November 2017 meeting, the Sutherland Traffic and Traffic Safety Committee, endorsed the proposed traffic calming measures.

At its meeting of 16 October 2017, Council resolved to adopt the recommendations endorsed by the Consultative Traffic Forum at its 6 October 2016 and resolved a report be provided on the success of the adopted measures after six months.
DISCUSSION

Traffic counts and speed data analysis were conducted at four sites for the purposes of evaluating the success of the traffic calming measures implemented in Moreton Road, Wilbung Road and Osprey Drive, Illawong. The sites selected were:

- Osprey Drive, between Osprey Drive and Wilbung Road, outside #74 Osprey Drive;
- Wilbung Road, between Black Close and Hartog Place, outside #13 Wilbung Road;
- Moreton Road, between Havannah Place and Wales Close, outside #13 Moreton Road; and
- Moreton Road, between Baudin Close and Tabard Place, outside #28 Moreton Road.

A comparison of the 2018 traffic count and speed data with data collected prior to the implementation of the traffic calming measures is shown below.

**Osprey Drive, Between Osprey Drive and Wilbung Road, Outside #74 Osprey Drive**

Traffic count and speed data was captured outside #74 Osprey Drive, Illawong, for seven day periods in December 2017 and in May 2018. The results are shown below:

<table>
<thead>
<tr>
<th>Dec 2017</th>
<th>May 2018</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>South</td>
<td>North</td>
</tr>
<tr>
<td>85&lt;sup&gt;th&lt;/sup&gt; Percentile Speed (km/h)</td>
<td>56</td>
<td>58</td>
</tr>
<tr>
<td>Seven Day AADT</td>
<td>853</td>
<td>889</td>
</tr>
</tbody>
</table>

There has been no variation in 85<sup>th</sup> percentile speed on Osprey Drive and a minor decrease in traffic volumes, between December 2017 and May 2018. An analysis of the breakdown of vehicle speeds by time of day shows no noticeable change in driver behaviour to May 2018.

Line marking in Osprey Drive, between Fowler Road and Wilbung Road, Illawong, has had negligible impact to vehicle volumes and speeds.

**Wilbung Road, Between Black Close and Hartog Place, Outside #13 Wilbung Road**

Traffic count and speed data was captured outside #13 Wilbung Road, Illawong, for a seven day period in May 2018. No previous traffic count and speed data is available for this site. The results are shown below:

<table>
<thead>
<tr>
<th>NA</th>
<th>May 2018</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>East</td>
<td>West</td>
</tr>
<tr>
<td>85&lt;sup&gt;th&lt;/sup&gt; Percentile Speed (km/h)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Seven Day AADT</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Wilbung Road is a low traffic volume road, with a majority of vehicles complying with the speed limit.
Moreton Road, Between Havannah Place and Wales Close, Outside #13 Moreton Road
Traffic count and speed data was collected outside #13 Moreton Road, Illawong, for a seven day period in September 2012 and in May 2018. The results are shown below.

<table>
<thead>
<tr>
<th></th>
<th>September 2012</th>
<th>May 2018</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>East</td>
<td>West</td>
<td>Combined</td>
</tr>
<tr>
<td>85th Percentile Speed (km/h)</td>
<td>55</td>
<td>56</td>
<td>55</td>
</tr>
<tr>
<td>Seven Day AADT</td>
<td>637</td>
<td>604</td>
<td>1241</td>
</tr>
</tbody>
</table>

There has been a 10% reduction in 85th percentile speed and a minor decrease in traffic volumes in Moreton Road, between Havannah Place and Wales Close, between September 2012 and May 2018.

The implementation of warning signage and line marking in Moreton Road appears to have contributed to a local reduction in vehicle speeds, between Havannah Place and Wales Close.

Moreton Road, Between Baudin Close and Tabard Place, Outside #28 Moreton Road
Traffic count and speed data was collected outside #28 Moreton Road, Illawong, for a seven day period in May 2017 and in May 2018. The results are shown below.

<table>
<thead>
<tr>
<th></th>
<th>May 2017</th>
<th>May 2018</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>East</td>
<td>West</td>
<td>Combined</td>
</tr>
<tr>
<td>85th Percentile Speed (km/h)</td>
<td>55</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>Seven Day AADT</td>
<td>821</td>
<td>878</td>
<td>1699</td>
</tr>
</tbody>
</table>

There has been a minor (2%) reduction in eastbound 85th percentile speed and a significant decrease in traffic volumes in Moreton Road, between Baudin Close and Tabard Place, between May 2017 and May 2018.

The implementation of warning signage and line marking in Moreton Road appears to have had a negligible impact on vehicle speeds and a significant impact on traffic volumes, between Baudin Close and Tabard Place.

RESOURCING STRATEGY IMPLICATIONS
As there is no work proposed, there are no budgetary or financial implications associated with the recommendations of this report.
COMMUNITY ENGAGEMENT
The traffic calming measures implemented following the 2017 fatal traffic accident in Morton Road were deliberated by the Consultative Traffic Forum and the Sutherland Traffic and Traffic Safety Committee and were endorsed by both committees.

STRATEGIC ALIGNMENT

<table>
<thead>
<tr>
<th>Community Strategic Plan Strategy</th>
<th>Delivery Program (2017-2021) Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1.4 Plan, advocate for and provide effective road networks.</td>
<td>6A.6 Deliver roads to agreed levels of service for quality, function and safety.</td>
</tr>
</tbody>
</table>

CONCLUSION
The traffic count and speed data collected in May 2018 shows a reduction in speed and traffic volumes at two locations in Moreton Road, when compared to data collected prior to the installation of warning signage and line marking. The traffic calming measures implemented following the fatal car crash in 2017 appear to have been moderately successful. Traffic speeds in the vicinity of Moreton Road do not warrant the implementation of further traffic calming measures and no further action is recommended at this time.

RESPONSIBLE OFFICER
The officer responsible for the preparation of this Report is the Manager-Traffic and Public Domain Services/Executive Engineer, Mario Sherrie, who can be contacted on 9710 0503.

File Number: 2018/262950
EXECUTIVE SUMMARY

- Council has an opportunity to support an innovative recycled asphalt product that recycles soft plastic and glass for road construction to create a sustainable, cost effective solution that has improved performance characteristics.
- It is proposed that Council provide the first road construction site in NSW to demonstrate the economic, social and environmental value of recycling products that would likely end up in landfill, stockpiled, or as a pollutant in our natural environments.
- There are risks associated with the trial that cannot be fully dismissed due to the asphalt being a newly developed product with only laboratory and limited field testing site, only time will determine if the product is successful.

REPORT RECOMMENDATION

THAT:

1. Council approve and support the use of a recycled asphalt as a demonstration site by Downer in partnership with NSW EPA and Sutherland Shire Council.

2. A further report be provided to Council in 12 months time as to the performance of the road pavement.
PURPOSE
This report seeks Council's determination to approve the use of an innovative recycled asphalt product in a practical demonstration of repurposing and recycling waste materials into new streams of use.

BACKGROUND
The road construction industry has been a strong advocate for the reuse and recycling of materials to produce improved construction materials that reduce the reliance on natural materials.

Downer Industries in partnership with a Victorian Hume Council, Vic Roads, Close the Loop, Red Group and Victoria EPA have developed an innovative asphalt product that utilises a combination of soft plastics, glass and toner cartridges which they have called “Plastiphalt”.

This innovative product has improved performance for fatigue and deformation over standard asphaltic concrete, for every kilometre of road paved this product will use approximately;

- 530,000 plastic bag and packaging equivalents
- 168,00 glass bottles
- Toner from 12,500 used toner cartridges
- 134 tonnes Reclaimed asphalt profiling (RAP)

Council has been given the opportunity to be the first demonstration site in NSW, there are a number of other councils competing to be the first.

DISCUSSION
The first trial of the pavement was in Melbourne on Tuesday 29 May 2018 and was reported on Channel Ten news and the ABC. Hume Council’s Asset Manager – Mr David Fricke has advised the there has been no issues with the new pavement since it was laid. “There have been no residential concerns and the new asphalt looks no different to any new standard asphalt pavement.”

Discussions with the contractor, were held in May and officers expressed an interest in Sutherland Council being the first council in NSW to use this new product as it would demonstrate Council’s commitment to recycling and the environment with a product where the laboratory and limited field testing had already been completed.

The proposed asphalt work is the profiling and laying of 40mm asphalt on one of the road pavements listed in the 2018/19 roads program. As asphalt is a flexible pavement and performs best with a consistant traffic volume and mass loadings it proposed to select a local road with medium traffic volumes 8000 Annual Average Daily Traffic (AADT) vehicle movements.

The cost of laying this product is in the order of an additional $5 per tonne (2%) above the normal supply and lay asphalt price with the total project budget of $50,000.
Risks

**Performance:** There will be no noticeable difference in the look or the vehicular ride over standard asphaltic concrete as the glass is course sand (4mm minus) replacement and the plastic and toner are polymer additives that enhance the durability and performance of the product. Polymer modified asphalts have been in use for over 20 years in Sydney. As this is new product there is a risk the road pavement may fail sooner than standard asphalt and need to be replaced.

Laboratory tests indicate the new asphalt will increase pavement life by 15%, sustain increased traffic count volumes of 20% whilst reducing the pavement thickness by 10%. Sutherland Council will request Downer to provide a 3 year defect liability period which is a standard clause in all Council Asphalt Laying Contracts.

**Financial:** The cost of using the new asphalt is 2% higher than standard asphalt and we have no certainty over the long term performance and subsequent cost. The demonstration project will be approximately 250 metre any rework if required would be funded from existing road pavement budget allocations.

**Environment:** The asphalt has an initial environmental benefits due the use of the recycled products. The energy consumption to produce the asphalt is the same as standard asphalt. The long term environment effects as the asphalt oxidises (ages) is an improvement over standard asphalt due to the additional polymer modification that bonds the long chain hydrocarbons within the asphalt.

**Road Safety:** The plastiphalt meets and exceeds the VicRoads performance specification for AC10H with improvements in pavement fatigue life and rutting. The pavement international roughness index (IRI) and skid resistance is the same as standard asphalt due to these properties being controlled by the grading curve of the traditional 10mm aggregate.

**Reputational:** Whilst the project demonstrates strong leadership in Council seeking solutions to improve environmental waste problems there is a reputational risk to the community if the trial was to fail.

It is proposed the practical demonstration will also include the laying a control section of standard Asphaltic Concrete (AC). This will enable Council to monitor the innovative asphalt against the standard asphalt under the same traffic loading and environmental conditions.

This project will generate a significant amount of media interest across Sydney and NSW. The NSW government will also be a partner to the project and will want to be part of the publicity and media release.
Benefit Realisation

Road pavements are typically long life assets and as such effectiveness will need to be measured over time with the following benefits expected to reflect the success of the trial:

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Measurement</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pavement life</td>
<td>+15% time</td>
<td>3 years</td>
</tr>
<tr>
<td>Traffic volume</td>
<td>+20% AADT</td>
<td>Life of the pavement</td>
</tr>
<tr>
<td>Landfill diversion</td>
<td>240kg per m³ asphalt</td>
<td>2,400 ton/annum</td>
</tr>
<tr>
<td>Roughness</td>
<td>IRI</td>
<td>100 IRI after 10yrs</td>
</tr>
</tbody>
</table>

The performance of the asphalt pavement will also be monitored in accordance with the IPWEA Practice Note 9 – Condition Assessment for Road Pavements and reported back to Council 12 months after the pavement has been laid.

Performance Test Results

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Plastiphalt (20% RAP, 5% Glass, 5.6% Binder, 0.75% Additive)</th>
<th>VicRoads AC10H Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stiffness Modulus @ 25°C (Mpa)</td>
<td>4200</td>
<td>2500 – 5500</td>
</tr>
<tr>
<td>Wheel Tracking Depth @ 60°C (mm)</td>
<td>1.6</td>
<td>&lt;11</td>
</tr>
<tr>
<td>Fatigue Life @ 20°C (kcycles)</td>
<td>477</td>
<td>&gt;140</td>
</tr>
<tr>
<td>Moisture Sensitivity – Tensile Strength Ratio (%)</td>
<td>84</td>
<td>&gt;80</td>
</tr>
<tr>
<td>Moisture Sensitivity – Wet Tensile Strength (kPa)</td>
<td>998</td>
<td>&gt;850</td>
</tr>
<tr>
<td>Particle Loss, Unconditioned (%)</td>
<td>8</td>
<td>N/A</td>
</tr>
<tr>
<td>Particle Loss, Moisture Conditioned (%)</td>
<td>11</td>
<td>N/A</td>
</tr>
<tr>
<td>Air Voids @ 50 Marshall Blows (%)</td>
<td>4.9</td>
<td>4.9% to 5.3%</td>
</tr>
</tbody>
</table>

RESOURCING STRATEGY IMPLICATIONS

The funding and resourcing of the $50,000 project will be met with existing 2018/19 Budget resources utilising grant funding from NSW EPA “Better Waste Recycle More” (BWRM) and Road Pavement Resurfacing Program. Downer EDI Works Pty Ltd are an approved contractor on the NSW LGP Contract - Bitumen, Emulsions and Asphalt Materials and Services (LGP213).
COMMUNITY ENGAGEMENT
An extensive campaign which will include consultation with the community and stakeholders will be undertaken as an education process on the environmental and engineering benefits of using this innovative product in the weeks prior to the works commencing. It is anticipated the NSW EPA will partner with Council in this campaign.

Notification of the road works to residents, emergency services, bus and transport operators will be undertaken two weeks before works are scheduled and then 48 hours before works actually commence.

STRATEGIC ALIGNMENT
The reuse of recyclable material in road construction supports;
Outcome 2: Sutherland Shire: A beautiful, protected and healthy natural environment.

<table>
<thead>
<tr>
<th>Community Strategic Plan Strategy</th>
<th>Delivery Program (2017-2021) Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Effectively manage and conserve resources.</td>
<td>2.1.1 Avoid, reduce and recycle our resources.</td>
</tr>
</tbody>
</table>

POLICY AND LEGISLATIVE REQUIREMENTS
Not Applicable.

CONCLUSION
Council has an opportunity to be a leader by supporting an innovative product that reduces the need for natural resources and increases the use of recycling waste materials to produce a more sustainable construction product.

RESPONSIBLE OFFICER
The officer responsible for the preparation of this Report is the Group Manager Operational Services, Mark Wood, who can be contacted on 9710 5876.

File Number: 2018/310630