

Business Papers

Environment & Infrastructure Committee Meeting

**Tuesday, 19 April 2016
12:00 noon**

Notice of Meeting

To the Lord Mayor and Aldermen

You are invited to attend an Environment & Infrastructure Committee Meeting to be held in Meeting Room 1, Level 1, Civic Centre, Harry Chan Avenue, Darwin, on Tuesday, 19 April 2016, commencing at 12.00 noon.



B P DOWD
CHIEF EXECUTIVE OFFICER

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Removed from Public Notice Board: _____

OPEN SECTION

E&I4/1

CITY OF DARWIN

ENVIRONMENT & INFRASTRUCTURE COMMITTEE

TUESDAY, 19 APRIL 2016

MEMBERS: Member S J Niblock (Chairman); The Right Worshipful, The Lord Mayor, Katrina Fong Lim; Member R M Knox; Member R Want de Rowe; Member E L Young.

OFFICERS: Chief Executive Officer, Mr B Dowd; General Manager Infrastructure, Mr L Cercarelli; Executive Manager, Mr M Blackburn; Manager Technical Services, Mrs N Nilon; Manager Design, Planning & Projects, Mr D Lelekis; Manager Infrastructure Maintenance, Mr K Smith; Manager Climate Change & Environment, Ms S Gamble; Executive Assistant, Ms A Smit.

Enquiries and/or Apologies: Arweena Smit
E-mail: a.smit@darwin.nt.gov.au - PH: 89300 685
OR Phone Committee Room 1, for Late Apologies - PH: 89300 519

Committee's Responsibilities

- | | |
|-----------------------------------|--|
| • Asset Management | • Infrastructure Projects |
| • Building Services | • Infrastructure Maintenance |
| • Cemeteries | • Design |
| • Mosquito control | • Planning |
| • Operations | • Road Construction and Traffic Management |
| • Parks & Reserves | • Urban Enhancement |
| • Pathways | • Climate Change and Environment |
| • Road maintenance | • Waste Management |
| • Sporting Areas | • Outdoor Dining |
| • Stormwater Drainage Maintenance | • Signage |
| • Street Cleaning | |
| • Urban Forest Management | |

THAT effective as of 16 April 2012 Council, pursuant to Section 32 (2)(b) of the Local Government Act 2008, hereby delegates to the Environment & Infrastructure Committee the power to make recommendations to Council and decisions relating to

OPEN SECTION

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Environment & Infrastructure Committee Meeting – Tuesday, 19 April 2016

1. MEETING DECLARED OPEN

The Chairman declared the meeting open at _____ p.m.

2. APOLOGIES AND LEAVE OF ABSENCE

Common No. 2695036

2.1 Apologies

()

THAT the apology from Member _____, be received.

DECISION NO.21\() (19/04/16)

2.2 Leave of Absence Granted

Nil

3. ELECTRONIC MEETING ATTENDANCE

Common No. 2221528

3.1 Electronic Meeting Attendance Granted

Nil

4. DECLARATION OF INTEREST OF MEMBERS AND STAFF

4.1 Declaration of Interest by Members

Common No. 2752228

4.2 Declaration of Interest by Staff

Common No. 2752228

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Environment & Infrastructure Committee Meeting – Tuesday, 19 April 2016

5. **CONFIDENTIAL ITEMS** Common No. 1944604

Nil

6. **WITHDRAWAL OF ITEMS FOR DISCUSSION**

() COMMITTEE'S DECISION

THAT the Committee resolve under delegated authority that all Information Items and Officers Reports to the Environment & Infrastructure Committee Meeting held on Tuesday, 19 April 2016 be received and considered individually.

DECISION NO.21\() (19/04/16)

7. **CONFIRMATION OF MINUTES PERTAINING TO THE PREVIOUS ENVIRONMENT & INFRASTRUCTURE COMMITTEE MEETING**

() COMMITTEE'S DECISION

THAT the Committee resolve that the minutes of the previous Environment & Infrastructure Committee Meeting held on Tuesday, 15 March 2016, tabled by the Chairman, be received and confirmed as a true and correct record of the proceedings of that meeting.

DECISION NO.21\() (19/04/16)

8. **BUSINESS ARISING FROM THE MINUTES PERTAINING TO THE PREVIOUS ENVIRONMENT & INFRASTRUCTURE COMMITTEE MEETING**

8.1 **Business Arising**

9. **DEPUTATIONS AND BRIEFINGS**

Nil

**ENCL: ENVIRONMENT & INFRASTRUCTURE
YES COMMITTEE/OPEN**

AGENDA ITEM: 10.1.1

ROADS TO RECOVERY PROGRAMME - ADDITIONAL FUNDING ALLOCATION

REPORT No.: 16TS0002 NN:tz

COMMON No.: 2827650

DATE: 19/04/2016

Presenter: Manager Technical Services, Nadine Nilon

Approved: General Manager Infrastructure, Luccio Cercarelli

PURPOSE

The purpose of this report is to inform Council of additional funding allocated to the Roads to Recovery Programme and to propose the project(s) to undertake with the available funding.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies of the City of Darwin 2012 – 2016 as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

2. Vibrant, Flexible and Tropical Lifestyle

Outcome

2.1 Improved access and connectivity

Key Strategies

2.1.3 Manage the road network to meet community needs

KEY ISSUES

- City of Darwin is eligible to receive an additional \$1,978,222 of funding for the Roads to Recovery Programme, to be used before June 2019.
- Investigations have occurred to determine suitable road projects for the new funding allocation.
- Dinah Beach Road, Darwin Lakeside Drive, Alawa, and Wells Street, Ludmilla have been considered as potential options based on asset management considerations.
- It is recommended that Dinah Beach Road, Darwin is the most suitable project to be undertaken with the additional funding allocation.

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 REPORT NUMBER: 16TS0002 NN:tz
 SUBJECT: ROADS TO RECOVERY PROGRAMME - ADDITIONAL FUNDING ALLOCATION

RECOMMENDATIONS

THAT it be recommended to Council:-

- A. THAT Report Number 16TS0002 NN:tz entitled Roads To Recovery Programme - Additional Funding Allocation, be received and noted.
- B. THAT Council endorses the reconstruction of Dinah Beach Road, Stuart Park, as Council's project for the Roads to Recovery Programme funding available to June 2019.

BACKGROUND

The Roads to Recovery Programme provides funding to Local Government Areas for maintenance and/or construction of roads in order to help maintain the local road network. City of Darwin received \$3,744,691 of Roads to Recovery Programme funding for the 2014/15 to 2018/19 period. This funding was allocated to The Esplanade upgrade project and has been spent.

In June 2015 the Australian Government provided notification of additional funding of \$1,978,222 to the Roads to Recovery Programme, of which details are available on their website (<http://investment.infrastructure.gov.au/funding/r2r/>). Allocation of this funding for Council roads is currently being explored through investigation of suitable road projects.

The eligibility for a project involves the road pavement condition, traffic signs and control equipment, street lighting equipment and bicycle paths when in association with a road. Footpaths, kerbs and drainage are also eligible for supplementary works where they are part of a wider road project.

DISCUSSION

A review of Council's road conditions, including survey data and field inspections has resulted in three roads being identified as potential projects; Dinah Beach Road, Darwin, Lakeside Drive, Alawa, and Wells Street, Ludmilla.

Dinah Beach Road, Darwin (Attachment A):

- Constructed around 1970
- Road is rural cross-section with no underground drainage, lighting, footpaths or kerbs
- Pavement/surface is in poor condition and has reached the end of its life
- Above ground drainage requires significant annual maintenance
- Requires an entire road upgrade to urban standard
- The existing contribution plan for road works and stormwater for Stuart Park estimated the cost of upgrades at approx. \$2 million in 2003
- Current estimates indicate over \$3 million would be required

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 REPORT NUMBER: 16TS0002 NN:tz
 SUBJECT: ROADS TO RECOVERY PROGRAMME - ADDITIONAL FUNDING ALLOCATION

- Total contributions received to date are approx. \$170,000 for both contribution plans with up to \$400,000 potentially able to be received through the road works contribution plan in the future
- Design of the road has commenced using the current contribution plan funds
- Currently scheduled in the Long Term Capital Works Plan for construction over 2016/17, 2017/18 and 2018/19 financial years with a total value of \$2.3 million funded from Revenue
- Roads to Recovery funding would offset council's contribution to these works
- The total cost to Council after the contribution funding and Roads to Recovery Funding will be unknown until detailed design is completed, however it may be in the range of \$500,000 to \$1 million.

Lakeside Drive, Alawa (Attachment B):

- Constructed around 1968
- Surface is in reasonable condition but overall the road is 'rough' and undulating, resulting in poor ride-ability
- Failed pavement sections, some due to stormwater failures
- Requires road pavement reconstruction of failed sections, asphalt replacement and minor stormwater works as required
- No other ancillary infrastructure works expected (i.e. footpaths)
- Opportunity to coordinate works with Lakeside Drive Master Plan (when adopted)
- Estimated cost - \$1.2 million

Wells Street, Ludmilla (Attachment C):

- Constructed around 1956
- Surface is in reasonable condition but overall the road is 'rough' and undulating, resulting in poor ride-ability
- Failed pavement sections
- Pavement reconstruction of failed sections, asphalt replacement and kerb replacement where required
- Requires road pavement reconstruction of failed sections, asphalt replacement and minor stormwater works as required
- No other ancillary infrastructure works expected (i.e. footpaths)
- Estimated cost - \$600,000

All of the roads listed above are considered worthwhile and eligible projects, and over time all will require the works identified to be undertaken. Dinah Beach Road is currently identified in the long term capital works programme to be reconstructed within the same timeframe as the Roads to Recovery Programme Funding. Lakeside Drive and Wells Street, if not selected, would be completed as staged projects through current programs over the next 5 years (or more depending on other priorities). Council may choose to undertake a combination of the roads identified with full, or part funding, depending on the project(s) and share of funding determined.

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 SUBJECT: ROADS TO RECOVERY PROGRAMME - ADDITIONAL FUNDING ALLOCATION

Due to the reasons identified and the opportunity for Council to reduce its planned capital costs on a project already scheduled, it is recommended that Dinah Beach Road is the project undertaken with the additional allocation of the Roads to Recovery Programme funding.

Dinah Beach Road is an eligible project for its need of an entire road upgrade based on asset management assessment combined with the requirement to upgrade to meet current community needs, including correlating with the proposed Barneson Boulevard extension. The project will also cover a range of supplementary criteria including lighting, stormwater, footpaths and kerbs.

It is recommended that Dinah Beach Road project commences in 2017/18 as this correlates with the timing requirements for the allocated funding. The timing also allows for detailed design to occur in 2016/17 so that the project can be budgeted and planned for appropriately, including any additional funds that may be required from the capital works program.

CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- Team Leader Capital Works
- Graduate Civil Engineer
- Manager Strategy and Outcomes

POLICY IMPLICATIONS

Nil identified

BUDGET AND RESOURCE IMPLICATIONS

The Roads to Recovery Programme allocated an additional \$1,978,222 funding to the City of Darwin to be used within the 2014/15 to 2018/19 period.

The estimated costs of each project are included in the body of this report.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

Roads to Recovery funding must be used in accordance with the requirements provided by the Australian Government. All required submissions, documents and timeframes will be met.

ENVIRONMENTAL IMPLICATIONS

Nil identified

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REPORT NUMBER: 16TS0002 NN:tz
SUBJECT: ROADS TO RECOVERY PROGRAMME - ADDITIONAL FUNDING ALLOCATION

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

NADINE NILON
MANAGER TECHNICAL
SERVICES

LUCCIO CERCARELLI
GENERAL MANAGER
INFRASTRUCTURE

For enquiries, please contact Natalie Dreiberger on 89300578 or email:
n.dreiberger@darwin.nt.gov.au.

Attachments:

Attachment A: Dinah Beach Road, Darwin
Attachment B: Lakeside Drive, Alawa
Attachment C: Wells Street, Ludmilla

Dinah Beach Road, Darwin



ATTACHMENT B

Lakeside Drive, Alawa



Wells Street, Ludmilla



**ENCL: ENVIRONMENT & INFRASTRUCTURE
YES COMMITTEE/OPEN**

AGENDA ITEM: 10.1.2

DARWIN BIKE PLAN - REVIEW OF IMPLEMENTATION PLAN 2015 - 2020

REPORT No.: 16TS0050 PH:jg

COMMON No.: 2476277

DATE: 19/04/2016

Presenter: Manager Design Planning & Projects, Drosso Lelekis

Approved: General Manager Infrastructure, Luccio Cercarelli

PURPOSE

The purpose of this report is to provide Council with an update on progress of the Darwin Bike Plan Implementation Plan 2015 – 2020 and to seek endorsement of a program of works for the five year period of 2016 to 2021 inclusive, subject to budget provision.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies of the City of Darwin 2012 – 2016 as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

2 Vibrant, Flexible and Tropical Lifestyle

Outcome

2.1 Improved access and connectivity

Key Strategies

2.1.1 Improve the pathway and cycle networks and encourage cycling and walking

KEY ISSUES

- Council adopted the Darwin Bike Plan 2015-2020 (Bike Plan) and the associated current Darwin Bike Plan Implementation Plan (Implementation Plan) on 26 May 2015.
- Delivery of the infrastructure components of the current Implementation Plan have been accelerated due to the receipt of a grant from the Northern Territory Government to complete these projects.
- A review of the current Implementation Plan has occurred and a revised five year Implementation Plan, commencing from the 2016/2017 financial year, is presented for Council's consideration and endorsement, subject to budget provision.

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 REPORT NUMBER: 16TS0050 PH:jg
 SUBJECT: DARWIN BIKE PLAN - REVIEW OF IMPLEMENTATION PLAN 2015 - 2020

RECOMMENDATIONS

THAT it be a recommendation to Council:-

- A. THAT Report Number 16TS0050 PH:jg entitled Darwin Bike Plan - Review Of Implementation Plan 2015 – 2020, be received and noted.
- B. THAT Council endorse and implement the revised five year Implementation Plan provided at **Attachment A** to Report Number 16TS0050 PH:jg entitled Darwin Bike Plan – Review of Implementation Plan 2015 – 2020, subject to budget provision.

BACKGROUND

At the Ordinary Council Meeting on 26 May 2015, Council resolved as follows:

Draft Darwin Bike Plan and Darwin Bike Plan Implementation Plan – Outcomes of Community Consultation

Report No. 15TS0005 DL:jg (19/05/15) Common No. 2476277

(Niblock/Knox)

- A. *THAT Report Number 15TS0005 DL:jg entitled Draft Darwin Bike Plan and Darwin Bike Plan Implementation Plan - Outcomes of Community Consultation, be received and noted.*
- B. *THAT Council adopt the amended Darwin Bike Plan and Pedalling at the Top – Bicycle Baseline Report included at **Attachments B** and **C** to Report Number 15TS0005 DL:jg entitled Draft Darwin Bike Plan and Darwin Bike Plan Implementation Plan - Outcomes of Community Consultation.*
- C. *THAT Council adopt the amended Darwin Bike Plan Implementation Plan – included at **Attachment D** to Report Number 15TS0005 DL:jg entitled Draft Darwin Bike Plan and Darwin Bike Plan Implementation Plan – Outcomes of Community Consultation subject to a review of year one Dinah Beach Project and that the Implementation Plan and any associated project evaluation process be reviewed annually as part of Council's Budget deliberations.*
- D. *THAT Council write to all submitters to the Draft Darwin Bike Plan, thanking them for their submission and advising them of the outcome.*

DECISION NO. 21\3353 (26/05/15)

Carried

This report addresses the annual review of the Implementation Plan and presents a revised five year Implementation Plan report for Council's endorsement, subject to budget provision.

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 SUBJECT: DARWIN BIKE PLAN - REVIEW OF IMPLEMENTATION PLAN 2015 - 2020

DISCUSSION

The current Implementation Plan commenced in the 2015/2016 financial year (Year 1).

Further to Council funding, Council was successful in obtaining grant funding through the Northern Territory Government's (NTG) Improving Strategic Local Roads funding program. The additional funding allowed for the fast tracked delivery of the bike infrastructure projects within the current Implementation Plan in 2015/2016.

Progress of Bike Implementation Plan

A summary of current progress of the Implementation Plan, separated into the infrastructure projects, complimentary facilities and education, encouragement and evaluation initiatives, is provided below.

Infrastructure Projects

The following projects were completed in 2015/2016:

1. Esplanade, Darwin CBD – on-road bicycle lane (Year 1);
2. Abala Road, Marrara – shared path adjacent basketball car park (Year 1);
3. Nightcliff Road, Rapid Creek – shared path renewal (Year 1);
4. Nightcliff Road, Rapid Creek – reconstruction of shared path from Aralia Street to Casuarina Drive – to complete path along route (Year 5);
5. Abala Road, Marrara – shared path south of Marrara Stadium (Year 2);
6. Casuarina Drive, Nightcliff – new shared path around Nightcliff Swimming Pool (Year 2); and
7. Malak park neighbourhood link (Year 2).

The following projects are underway:

1. Dinah Beach Road, Stuart Park – shared path (Year 1)-deferred and funds redirected to new projects (as per Council Decision No. 21\3969 (24/11/15);
2. Abala Road, Marrara – shared path extension to new Henry Wrigley Drive shared path (Not in in Implementation Plan – but provides an opportunity to link to NTG's new path along Henry Wrigley Drive) – Estimated construction May 2016; and

It is noted that Council deferred the implementation of the Dinah Beach Road shared path at its meeting on 24 November 2015 and this path is now included as part of the Dinah Beach Road upgrade project.

Complementary Facilities

1. Bike Racks – following community feedback in regard to the location of new bike racks, a program for the delivery of 70 new bike racks by 30/06/16 is being developed. This covers the total number of bike racks in Years 1 to 4 of the current Implementation Plan.

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2. Wayfinding and Signage – pending the development of a Wayfinding and Signage Strategy in 2015/2016 – envisage installation of wayfinding and signage will commence in 2016/2017.

Education, Encouragement and Evaluation Initiatives

1. *Share the Road* and *Share the Path* – television commercials and campaigns are under development in partnership with Bicycle NT and NTG stakeholders;
2. *Ride to Markets* – will be delivered through Healthy Darwin bike market tours;
3. Encouragement Initiatives – *She Rides*: Healthy Darwin program to work with Pedals NT and Cycling Australia to support this program. *Grand Fondo*: CoD to have a presence at the Grand Fondo Cycling Festival in August 2016 to promote cycling initiatives such as Ride 2 Work Day;
4. Ride to Work Day Activities/Breakfast - Ride 2 Work Day was held on 14/10/15 and was used as an opportunity to engage the community on the best locations for bike parking;
5. Rider Surveys – Super Tuesday and Super Sunday 2015;
6. Production of Bicycle Technical Notes – assessing proposal received and envisage completion by 30/06/16; and
7. Advocate to the NTG for a shared path along Bagot Road – ongoing.

Proposed Bike Plan Implementation Plan for 2016-2021

A review of the current Implementation Plan has been undertaken. Considering the progress outlined above a proposed revised Implementation Plan for the forward five year period from the 2016/2017 to the 2020/2021 financial years (inclusive) has been developed. The budget allocations used are indicative and are based on Council's Long Term Financial Plan (LTFP).

The proposed revised Implementation Plan 2016 -2021 is provided at **Attachment A** to this report. Plans showing the locations of the infrastructure components (new shared paths) within the revised Implementation Plan are provided at **Attachment B** and **C** for the new Year 1 and Year 2 projects respectively.

The proposed delivery of the infrastructure, complimentary facilities and education, encouragement and evaluation initiatives components of the proposed revised Implementation Plan are described below.

Infrastructure Projects

The infrastructure projects that would be delivered in each year of the proposed revised Implementation Plan for 2016 to 2021, including a brief project description and the reasoning behind their inclusion in the program are provided below.

Year 1 Projects (2016/2017)

1. Sabine Road Shared Path – replacement of existing footpath on one side of road with a shared path from McMillans Road to Trower Road. Addresses a gap identified in Figure 1-2 of Appendix E of the "Pedalling at the Top-Bicycle Baseline Report" and allows a further area of the municipality to be within 400 metres of a bicycle facility. Also provides connectivity to schools in the area;

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2. Parer Drive Shared Path - replacement of existing footpath on one side of road with a shared path from Trower Road to Lee Point Road. Addresses a gap identified in Figure 1-2 of Appendix E of the "Pedalling at the Top-Bicycle Baseline Report" and allows a further area of the municipality to be within 400 metres of a bicycle facility. Also provides connectivity to schools in the area;

Year 2 Projects (2017/2018)

1. Mueller Road Shared Path - replacement of existing footpath on one side of road with a shared path from McMillans Road to Vanderlin Drive. Addresses a gap identified in Figure 1-2 of Appendix E of the "Pedalling at the Top-Bicycle Baseline Report" and allows a further area of the municipality to be within 400 metres of a bicycle facility. Also provides connectivity to schools in the area;
2. East Point Shared Path Upgrade – upgrade existing path to address issues identified in audit. This is a Year 5 project in the current Implementation Plan (2015-2020);
3. Mindil Beach to Cullen Bay Shared Path Connection – provided a link from the Gilruth Avenue to Kahlin Avenue, via Burnett Place, to provide an alternative link from Mindil Beach to Cullen Bay.

Year 3 Project (2018/2019)

1. Daly Street On-Road Cycle Lanes (Stage 1) – Esplanade to Smith Street. This is a Year 3 project in the current Implementation Plan (2015-2020).

Year 4 Project (2019/2020)

1. Daly Street On-Road Cycle Lanes (Stage 2) –Smith Street to McMinn Street. This is a Year 4 project in the current Implementation Plan (2015-2020).

Year 5 Projects (2020/2021)

1. Dinah Beach Road Shared Path – new along Dinah Beach Road. Provides linkage between Tiger Brennan Drive and Stuart Highway;
2. Cavenagh Street On-Road Cycle Lanes – new cycle lanes creating new CBD link from Daly Street to Bennett Street.

Complementary Facilities

The bike racks identified in Years 1 to 4 of the current Implementation Plan will be delivered in the 2015/2016 financial year. Therefore, the proposed Implementation Plan for 2016 to 2021 only includes bike racks for delivery in Year 1 (2016/2017) of this plan. This activity will deliver an estimated 100 bike racks in areas identified. It is proposed that these be installed and that as part of the 2017/2018 Budget process, consideration can be given to the need for further installations and locations.

The installation of wayfinding and signage elements of the revised proposed Implementation Plan will follow the development of the Wayfinding and Signage

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Strategy Development document. It is envisaged that the implementation of this signage will occur progressively over each of the five years.

Education, Encouragement and Evaluation Initiatives

This component of the Implementation Plan will continue to follow the activities identified in the current version of the Implementation Plan. .

Summary of Allocations and Costs

Table 1 below summarises the allocations and the costs of each of the three main component headings for the projects in the revised proposed Implementation Plan at **Attachment A**.

Table 1 – Summary of Allocations and Costs in Revised Proposed Implementation Plan

Financial Year	Infrastructure Projects	Complementary Facilities		Education, Encouragement & Evaluation	Total Allocation
		Bike Racks	Wayfinding and Signage		
2016/2017	\$490,865	\$20,000	\$15,000	\$35,000	\$560,865
2017/2018	\$499,278		\$15,000	\$55,000	\$569,278
2018/2019	\$527,817		\$15,000	\$35,000	\$577,817
2019/2020	\$511,484		\$20,000	\$55,000	\$586,484
2020/2021	\$520,282		\$30,000	\$45,000	\$595,282

Summary

It is recommended that the proposed revised 5 year Implementation Plan at **Attachment A** and as outlined in this report for the financial years of 2016/2017 to 2020/2021 (inclusive) be endorsed for implementation by Council subject to budget provision. It is considered appropriate and good governance for Council to review the Implementation Plan annually, as part of its budget process.

CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- Civil Engineering Officer
- Manager Climate Change and Environment
- Manager Recreation, Events and Customer Service
- Team Leader Capital Works
- Recreation and Healthy Lifestyle Coordinator

Should the proposed revised Implementation Plan be adopted, a Level 1 Consultation (Information) process in accordance with the City of Darwin Policy Number - 25 – Community Consultation, to inform key stakeholders, will be implemented.

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SUBJECT: DARWIN BIKE PLAN - REVIEW OF IMPLEMENTATION PLAN 2015 - 2020

POLICY IMPLICATIONS

The proposed new Implementation Plan infrastructure projects are in line the visions set out in the Darwin Bike Plan 2015 – 2020 and the balance of the items are consistent with the content in the current Darwin Bike Implementation Plan 2015-2020. Consequently, the proposed new Implementation Plan does not represent a significant shift in the City of Darwin's policies in regard to provisions for bike riding in the municipality of Darwin.

BUDGET AND RESOURCE IMPLICATIONS

Each year of the new proposed Implementation Plan has a funding allocation based on Council's Long Term Financial Plan (LTFP). A summary of allocations and costs in revised proposed Implementation Plan is provided within the Discussion section of this report.

Should the LTFP values adopted in 2016/2017 be different to those identified in this report, then projects within the revised proposed Implementation Plan may need to be added or deleted to align with the actual funding profile.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

The safety of bike riders travelling along routes within the Municipality is improved by providing safe on and off-road facilities and these facilities would likely encourage bike riding as an alternative safe mode of travel to the motor vehicle.

ENVIRONMENTAL IMPLICATIONS

Supporting alternative modes of transport to the motor vehicle, such as bicycles, would have positive environmental implications.

The expansion of Council's shared path network provides improved access and connectivity for the community.

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 SUBJECT: DARWIN BIKE PLAN - REVIEW OF IMPLEMENTATION PLAN 2015 - 2020

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

DROSSO LELEKIS
MANAGER DESIGN PLANNING &
PROJECTS

LUCCIO CERCARELLI
GENERAL MANAGER
INFRASTRUCTURE

For enquiries, please contact Drosso Lelekis on 89300414 or email:
 d.lelekis@darwin.nt.gov.au.

Attachments:

- Attachment A:** Proposed New Five Year Bike Implementation Plan (2016-2021)
- Attachment B:** Plan showing Year 1 infrastructure projects within proposed new Implementation Plan (2016-2021) and existing shared paths
- Attachment C:** Plan showing Year 2 infrastructure projects within proposed new Implementation Plan (2016-2021) and existing shared paths

DARWIN BIKE PLAN 2016 - 2021

IMPLEMENTATION PLAN

2016/2017

LTCWP Allocation \$ 560,865

Infrastructure Projects

Category	Project	Details	Construction Cost
Missing Link	Sabine Road from McMillans Road to Trower Road	Remove existing footpath on one side and replace with 2.5m wide shared path	\$ 245,432
Missing Link	Parer Drive from Trower Road to Lee Point Road	Remove existing footpath on one side and replace with 2.5m wide shared path	\$ 245,433
Total			\$ 490,865

Complementary Facilities

	Lead Agency/Partners	Estimated Facility Cost	Estimated Installation	Indicative Order of Costs
Bike Racks				
Minimum 20 new bike racks - approximately 20 bike parking spaces	City of Darwin and local organisations	\$500	\$500	\$1,000 per rack
Wayfinding and Signage Implementation (including Share the Path messages)				\$ 15,000
Total				\$ 35,000

Education, Encouragement and Evaluation Initiatives

		Lead Agency/Partners	Indicative Contribution from City of Darwin
Share the Road	Campaign Delivery	Northern Territory Government/City of Darwin	\$ 10,000
Ride to the Markets	Campaign Delivery	City of Darwin, Bicycle Groups and Market Organisers	\$ 10,000
Ride to Work Day Activities/Breakfast	Ongoing (existing budget)	City of Darwin/Northern Territory Government and partners such as Bicycle Network	Existing Budget
Encouragement Initiatives	Promotional Budget	City of Darwin	\$ 7,500
Rider Surveys	Super Tuesday/Sunday	City of Darwin	\$ 7,500
Total			\$ 35,000

DARWIN BIKE PLAN 2016 - 2021 IMPLEMENTATION PLAN

2017/2018

LTCWP Allocation \$ 569,278

Infrastructure Projects

Category	Project	Details	Construction Cost
Missing Link	Mindil Beach to Cullen Bay	Provide off-road connection from Gilruth Avenue to Kahlin Avenue via Burnett Place to provide an alternative link from Mindil Beach to Cullen Bay	\$ 180,413
Missing Link	Mueller Road from McMillans Road to Vanderlin Drive	Remove existing footpath on eastern side and replace with 2.5m wide shared path	\$ 270,865
Renewal - Path Upgrade	East Point Shared Path	Path Upgrade to address issues identified during audit	\$ 48,000
Total			\$ 499,278

Complementary Facilities

	Lead Agency/Partners	Estimated Facility Cost	Estimated Installation	Indicative Order of Costs
Wayfinding and Signage Implementation (including Share the Path messages)				\$ 15,000
Total				\$ 15,000

Education, Encouragement and Evaluation Initiatives

		Lead Agency/Partners	Indicative Contribution from City of Darwin
"Ride Darwin Bikefest" Event (possibly coordinated with Gran Fondo)	Concept Development and Delivery	City of Darwin/Northern Territory Government and a range of	\$ 20,000
Share the Road	Campaign Delivery	Northern Territory Government/City of Darwin	\$ 10,000
Ride to the Markets	Campaign Delivery	City of Darwin, Bicycle Groups and Market Organisers	\$ 10,000
Ride to Work Day Activities/Breakfast	Ongoing (existing budget)	City of Darwin/Northern Territory Government and	Existing Budget
Encouragement Initiatives	Promotional Budget	City of Darwin	\$ 7,500
Rider Surveys	Super Tuesday/Sunday	City of Darwin	\$ 7,500
Total			\$ 55,000

DARWIN BIKE PLAN 2016 - 2021 IMPLEMENTATION PLAN

2018/2019

LTCWP Allocation \$ 577,817

Infrastructure Projects

Category	Project	Details	Construction Cost
Missing Link	Daly Street from McMinn Street to Esplanade	Provide on-road cycle lanes, improve connectivity for using off-road space at the Smith Street roundabout and Esplanade (Stage 1)	\$ 527,817
Total			\$ 527,817

Complementary Facilities

	Lead Agency/Partners	Estimated Facility Cost	Estimated Installation	Indicative Order of Costs
Wayfinding and Signage Implementation (including Share the Path messages)				\$ 15,000
Total				\$ 15,000

Education, Encouragement and Evaluation Initiatives

		Lead Agency/Partners	Indicative Contribution from City of Darwin
Share the Road	Campaign Delivery	Northern Territory Government/City of Darwin	\$ 10,000
Ride to the Markets	Campaign Delivery	City of Darwin, Bicycle Groups and Market Organisers	\$ 10,000
Ride to Work Day Activities/Breakfast	Ongoing (existing budget)	City of Darwin/Northern Territory Government and partners such as Bicycle Network	Existing Budget
Encouragement Initiatives	Promotional Budget	City of Darwin	\$ 7,500
Rider Surveys	Super Tuesday/Sunday	City of Darwin	\$ 7,500
Total			\$ 35,000

DARWIN BIKE PLAN 2016 - 2021 IMPLEMENTATION PLAN

2019/2020

LTCWP Allocation \$ 586,484

Infrastructure Projects

Category	Project	Details	Construction Cost
Missing Link	Daly Street from McMinn Street to Esplanade	Provide on-road cycle lanes, improve connectivity for using off-road space at the Smith Street roundabout and Esplanade (Stage 2)	\$ 511,484
Total			\$ 511,484

Complementary Facilities

	Lead Agency/Partners	Estimated Facility Cost	Estimated Installation	Indicative Order of Costs
Wayfinding and Signage Implementation (including Share the Path messages)				\$ 20,000
Total				\$ 20,000

Education, Encouragement and Evaluation Initiatives

		Lead Agency/Partners	Indicative Contribution from City of Darwin
"Ride Darwin Bikefest" Event (possibly coordinated with Gran Fondo)	Concept Development and Delivery	City of Darwin/Northern Territory Government and a range of stakeholders	\$ 20,000
Share the Road	Campaign Delivery	Northern Territory Government/City of Darwin	\$ 10,000
Ride to the Markets	Campaign Delivery	City of Darwin, Bicycle Groups and Market Organisers	\$ 10,000
Ride to Work Day Activities/Breakfast	Ongoing (existing budget)	City of Darwin/Northern Territory Government and partners such as Bicycle Network	Existing Budget
Encouragement Initiatives	Promotional Budget	City of Darwin	\$ 7,500
Rider Surveys	Super Tuesday/Sunday	City of Darwin	\$ 7,500
Total			\$ 55,000

DARWIN BIKE PLAN 2016 - 2021 IMPLEMENTATION PLAN

2020/2021

LTCWP Allocation \$ 595,282

Infrastructure Projects

Category	Project	Details	Construction Cost
Missing Link	Dinah Beach Road shared path Highway	Completion of shared path from Dinah Beach Road to Stuart Highway	\$ 220,282
Missing Link	Cavenagh Street from Daly Street to Bennett Street	Provide on-road cycle Lanes / advisory treatments	\$ 300,000
Total			\$ 520,282

Complementary Facilities

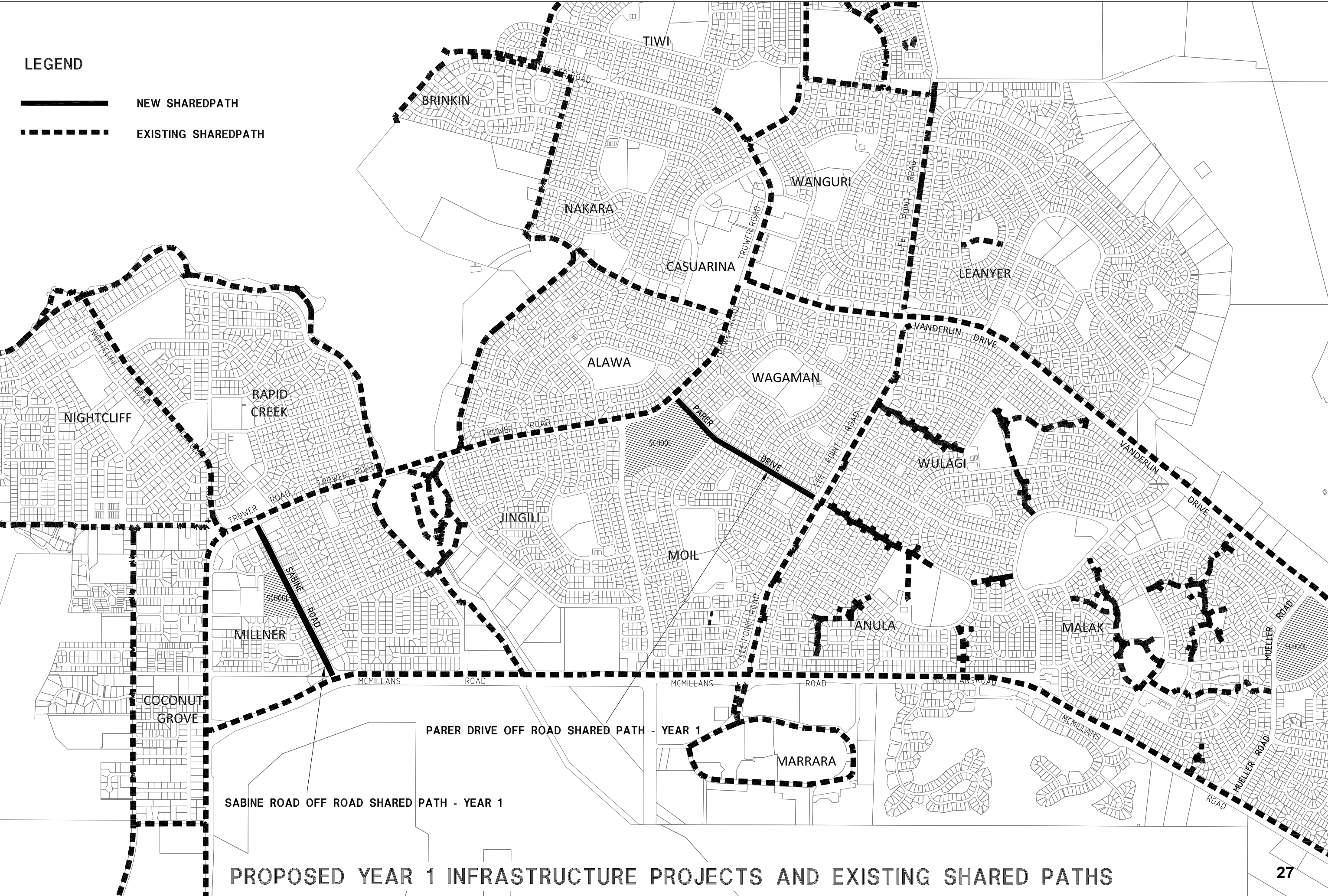
	Lead Agency/Partners	Estimated Facility Cost	Estimated Installation	Indicative Order of Costs
Wayfinding and Signage Implementation (including Share the Path messages)				\$ 30,000
Total				\$ 30,000

Education, Encouragement and Evaluation Initiatives

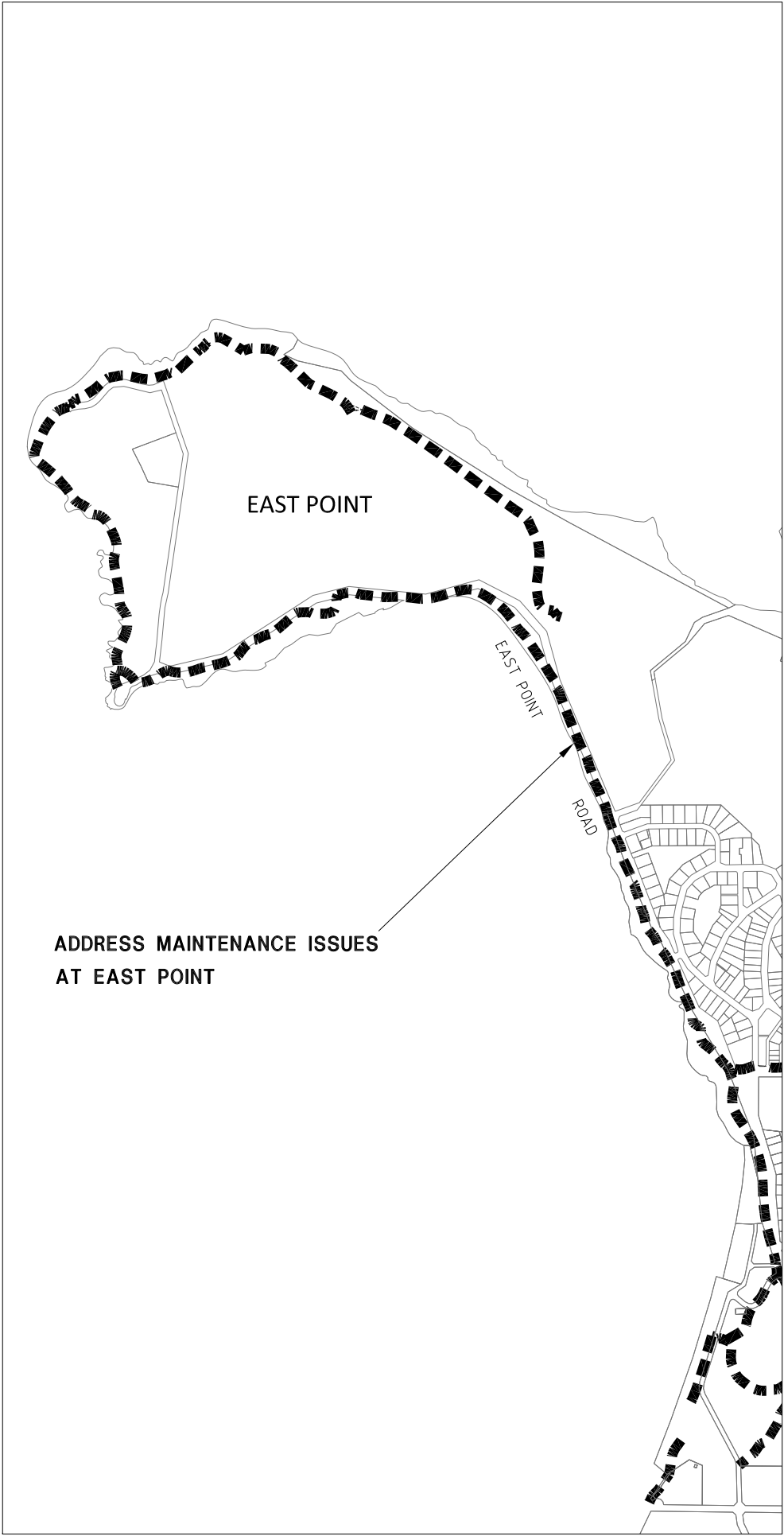
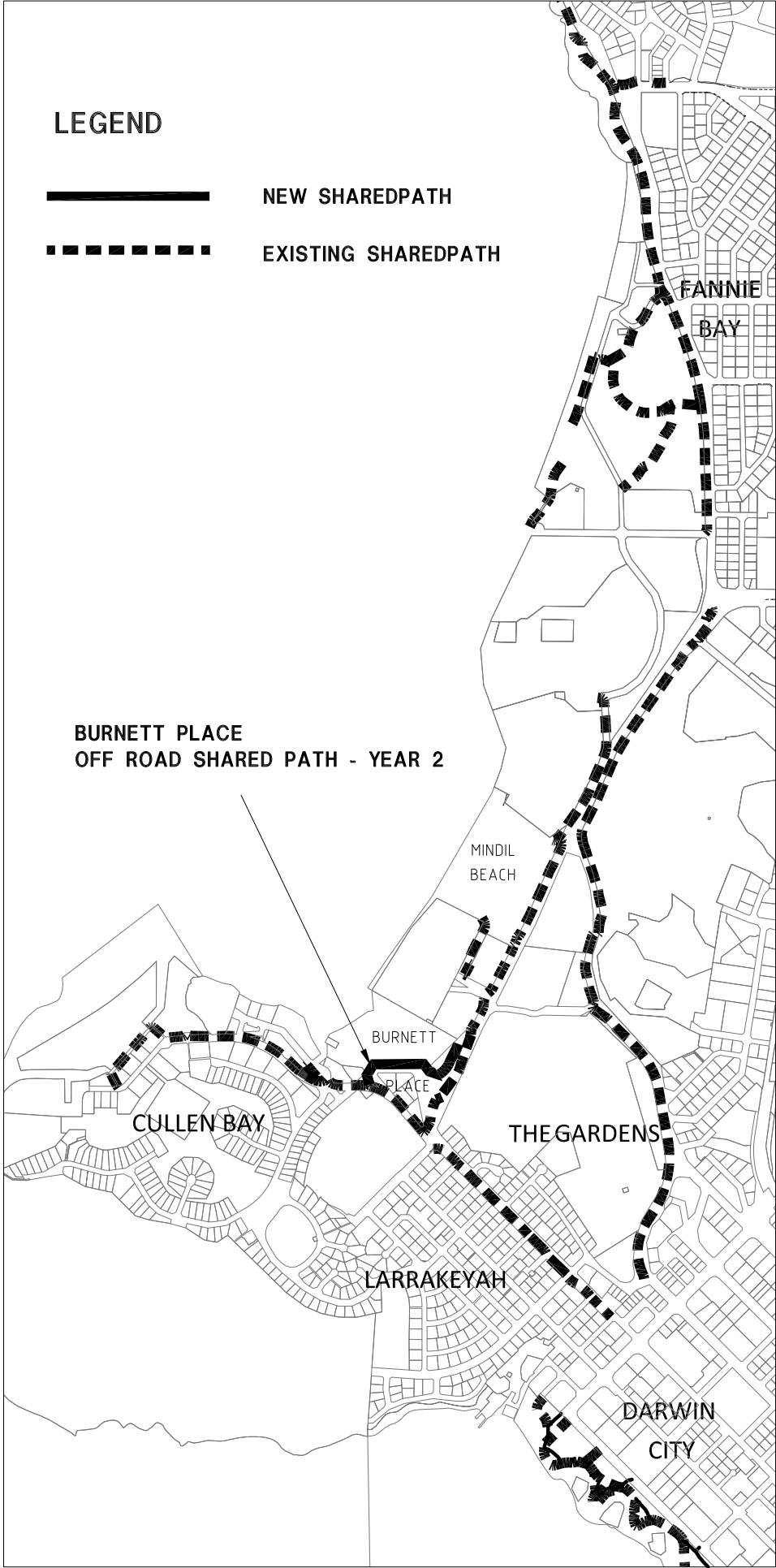
		Lead Agency/Partners	Indicative Contribution from City of Darwin
"Ride Darwin Bikefest" Event (possibly coordinated with Gran Fondo)	Concept Development and Delivery	City of Darwin/Northern Territory Government and a range of stakeholders	\$ 20,000
Share the Road	Campaign Delivery	Northern Territory Government/City of Darwin	\$ 12,500
Ride to the Markets	Campaign Delivery	City of Darwin, Bicycle Groups and Market Organisers	\$ 12,500
Ride to Work Day Activities/Breakfast	Supplementary Funding to Existing CoD Budget	City of Darwin/Northern Territory Government and partners such as Bicycle Network	\$ 5,000
Encouragement Initiatives	Promotional Budget	City of Darwin	\$ 12,500
Rider Surveys	Super Tuesday/Sunday	City of Darwin	\$ 7,500
Total			\$ 45,000

LEGEND

- NEW SHAREDPATH
- EXISTING SHAREDPATH



PROPOSED YEAR 1 INFRASTRUCTURE PROJECTS AND EXISTING SHARED PATHS



**ENCL: ENVIRONMENT & INFRASTRUCTURE
NO COMMITTEE/OPEN**

AGENDA ITEM: 10.2.1

CAPITAL WORKS - MARCH 2016 QUARTERLY REPORT

REPORT No.: 16TS0069 NK:jg

COMMON No.: 1541601

DATE: 19/04/2016

Presenter: Manager Design Planning & Projects, Drosso Lelekis

Approved: General Manager Infrastructure, Luccio Cercarelli

PURPOSE

The purpose of this report is to provide an update on the status of Capital Works projects within the 2015/2016 budget, for the January to March 2016 Quarter.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies of the City of Darwin 2012 – 2016 as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

5 Effective and Responsible Governance

Outcome

5.5 Responsible financial and asset management

Key Strategies

5.5.1 Manage Council's business based on a sustainable financial and asset management strategy

KEY ISSUES

- This report updates Council on the progress of the 2015/2016 Capital Works projects managed by the Infrastructure Department (total \$34.2 million) for the January to March 2016 Quarter.

RECOMMENDATIONS

THAT the Committee resolve under delegated authority:-

THAT Report Number 16TS0069 NK:jg entitled Capital Works – March 2016 Quarterly Report, be received and noted.

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 REPORT NUMBER: 16TS0069 NK:jg
 SUBJECT: CAPITAL WORKS - MARCH 2016 QUARTERLY REPORT

BACKGROUND

City of Darwin's 2015/2016 Capital Works Budget at 31 March 2016, is \$40 million.

At the end of March 2016, City of Darwin has committed or completed projects to the value of \$22.9 million, which represents 57% of the City of Darwin's total Capital Works Budget.

Of the total Council Capital Works Budget, \$34.2 million is directly managed and delivered by the Infrastructure Department. This report focuses on the progress of projects within the Infrastructure Department.

DISCUSSION

At the end of March 2016, the Infrastructure Department has committed or completed projects to the value of \$20.9 million, which represents 60% of the total Infrastructure Department's component of the City of Darwin's Capital Works Budget. A number of the significant projects are subject to separate reports and decisions of Council.

The following is a summary of the status of several significant valued projects within the 2015/2016 Infrastructure Capital Works Program at the end of March 2016:

Road Resurfacing: \$2.7 million - 78% committed or completed

A number of projects have been completed under a previously existing contract, which has now concluded.

A new contract for this program has been awarded.

Works that have been completed since December 2015 are:

- Jean St
- Young Cres
- Stasinowsky St
- Varney Cres
- Mayhew Cres
- Carrington St
- Trower Rd Asphalt resurfacing has been completed between Vanderlin and Scaturchio
- Mitchell St was resurfaced between Daly and Mauna Loa

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 SUBJECT: CAPITAL WORKS - MARCH 2016 QUARTERLY REPORT

Playground Refurbishment: \$1.5 million – 32% committed or completed

The statuses of several projects within this program are as follows :

Playground refurbishment 2015/16 - \$102k

- Community consultation was undertaken in November 2015 for the refurbishment of Parkside Park, Leanyer and Dwyer Park, The Narrows. Procurement for the playground refurbishment at Parkside Park is being finalised with construction envisaged in May 2016.

The Northern Territory Government is currently in negotiations with the City of Darwin to undertake stormwater flooding mitigation measures within Dwyer Park. Staff envisage that the playground refurbishment will be undertaken in conjunction with these works in July 2016.

Holtzerland Park Playground refurbishment - \$47k

- Construction completed in December 2015.

Anula Regional Playground additional shading - \$50k

- Project was re-scheduled while community consultation was undertaken. Works will coincide with the major upgrade of the playground, expected to commence in July 2016.

Anula Regional Playground refurbishment - \$350k

- Community consultation was completed in September 2015, with 74 responses received. Tender for the works has been awarded, it is envisaged that the refurbishment will be undertaken June - August 2016.

Playground Shade - \$778k

- A Tender for 50% of the full endorsed annual program was awarded and construction commenced in February 2016. The balance of the program was advertised for tender in February 2016 and has recently been awarded. All works will be completed by 30 June 2016.

Tender 1		Tender 2	
Location	Status	Location	Status
Allen Park	Under Construction	Latrobe Park	Programmed June
Bill Sullivan Park	Programmed May	Moil Park	Programmed June
Brazil Park	Under Construction	Nation Cres Park	Programmed June
Cameron Park	Completed	Parkside Park	Under Construction
Garanmanuk Park	Completed	Qantas Park	Programmed June
Greenwood Park	Programmed May	Tasman Park	Programmed June
Haritos Park	Programmed April	Tiwi Park	Programmed June
Johnson Park	Programmed May	Warrego Park	Programmed June
Linde Park	Programmed May	Young Park	Programmed June

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 SUBJECT: CAPITAL WORKS - MARCH 2016 QUARTERLY REPORT

Stormwater Upgrades: \$713,000 - 48% committed or completed

2015/16 Program consists of the following projects which are currently under design or construction.

- 259 Casuarina Drive, Nightcliff
- 25 Drysdale Street, Parap
- 71 Benison Road, Winnellie
- 20 Harney Street, Ludmilla
- Sanders Street, Jingili

Shared Path Construction and Reconstruction: \$1 million - 76% committed or completed

The 5 year Bike Plan Implementation Plan has been accelerated due to grant funding received from the NTG, for the delivery of years 1-3 inclusive of the infrastructure components of the Bike Plan.

The infrastructure components are on track to be completed by June 2016.

Works have commenced in accordance with Council's endorsed Bike Plan.

Pathway Construction and Reconstruction: \$867,763 - 93% committed or completed

The program has been developed, community consultation has been undertaken and construction completed on the following paths:

- 10 Knuckey Street, Darwin CBD
- Gardens Road, The Gardens
- Marina Boulevard, Cullen Bay
- De Latour Street, Coconut Grove
- Valder Cres, Nightcliff
- Warratah Cres, Fannie Bay
- Jinka St, Tiwi
- McLachlan St, Darwin CBD

Roads to Recovery (Esplanade Upgrade Project): \$3.7 million - 100% committed or completed

Construction commenced on 15 July 2015 and major construction was completed early in March 2016. The total project cost is estimated at \$3.7 million and the roadworks are funded by the Australian Government.

Minor outstanding works include final line marking of the cycle lane, these works have been delayed due to treatment requiring specific climatic conditions for optimum outcome. It is envisaged that these works will be undertaken prior to June 2016. The project was launched with Australian Government on the 23 March.

Coastal Erosion: \$2.2 million - 78% committed or completed

The status of projects within this program is as follows:

Coastal Erosion Management Plan - \$1.5 million

- Contract for these works has been awarded

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 SUBJECT: CAPITAL WORKS - MARCH 2016 QUARTERLY REPORT

- Works commenced in February 2016
- Expected completion date May 2016

Rock Wall Kurrajong Street – \$153,230

- Stage 2 of the project has been completed

Sea Wall Sunset Park - \$527,339

- Contract for these works has been awarded
- Work commenced in January 2016

Darwin City Centre Master Plan Projects: \$4.3 Million - 10% committed or completed

An overall communication plan for the Master Plan Projects has been developed and discrete community consultation plans are being developed to suit individual projects.

The following table provides a summary of the progress of each of the identified projects:

Project	Status
MP002 Smith Street/The Esplanade Intersection Treatment	Contract for this project will be awarded in April 2016 with works to be completed by July 2016.
MP009 Bicentennial Park Play Space	A report on the outcomes of the consultation process went to Council on 22 March 2016, and it was resolved that the project proceed to implementation. It is anticipated that the Play Space will be completed by 15 December 2016 for the school holidays.
MP012 Esplanade Parade	On-hold, pending outcomes of the City Play Space.
MP013 Smith Street Upgrade	Brief developed and submissions were called in March 2016. Concept design for Smith Street, from Knuckey Street to Daly Street, including staging plan.
MP032 Smith– Daly Street Intersection	Intersection analysis concept design and cost estimation of the works have been completed. Council has been successful in securing funding from the Black Spot Program to the value of \$550,000. This project is the subject of a separate report to Council. Consultation is occurring with stakeholders regarding bike lane treatments with a report to Council expected to 2 nd Ordinary in April 2016.
MP036 Smith–Bennett Street Intersection	This project has been deferred until the outcomes of the Esplanade/Smith Street intersection can be assessed to ensure improved outcomes for all road users and minimise disruption in the CBD.
MP037 Tamarind Park Upgrade	Project completed.

CBD Public Toilet - \$350,000

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The CBD Park Public Toilet Project formed a report to the 1st Ordinary Council Meeting on 9 February 2016 – Report No 16TS0007 DL:jw New Public Toilet – Alternate Site Investigation.

Council resolved that the location of the New Public Toilet be on the North East side of the Browns Mart office building, adjacent to the eastern corner in Civic Park.

The installation of the new public toilet in Civic Park is set to commence and the project is expected to be completed prior to the Darwin Festival 2016.

Photovoltaic System Operations Centre - \$193k

The PV system is now operational.

Photovoltaic System Nightcliff and Casuarina Pools - \$180k

Final approvals have been received from Power Water Corporation. Tenders for the project have been awarded. The contractor is progressing the project with works to be completed June/July 2016.

Emergency Back Up Generators Civic Centre - \$298k

Project completed.

Nightcliff Community Hall Air Conditioner - \$214,523

AC plant installation is complete. Final commission and operation to be completed once Main Switchboard has been reconfigured, to allow metering of plant.

CONSULTATION PROCESS

Communication and engagement plans are implemented for the various projects as required.

In preparing this report, the following City of Darwin officers were consulted:

- Manager Finance
- Team Leader Capital Works
- Manager Infrastructure Maintenance
- Team Coordinator Cityworks
- Team Coordinator Parks and Reserves

POLICY IMPLICATIONS

All works are undertaken with consideration of Council policies.

BUDGET AND RESOURCE IMPLICATIONS

As provided within the body of this report. Budget variations will be undertaken in the 3rd quarter to reflect project status and timing with funds to be moved into reserves until required to meet expectations.

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RISK/LEGAL/LEGISLATIVE IMPLICATIONS

All works undertaken within the Capital Works Program are undertaken in compliance with appropriate legislation.

ENVIRONMENTAL IMPLICATIONS

Deliverables from the projects identified within this report will have where practical, sustainable aspects built into them such as solar power, energy and water efficiency devices, and consideration of long-term maintenance outcomes.

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

DROSSO LELEKIS
MANAGER DESIGN PLANNING &
PROJECTS

LUCCIO CERCARELLI
GENERAL MANAGER
INFRASTRUCTURE

For enquiries, please contact Drosso Lelekis on 8930 0414 or email:
 d.lelekis@darwin.nt.gov.au.

**ENCL: ENVIRONMENT & INFRASTRUCTURE
NO COMMITTEE/OPEN**

AGENDA ITEM: 10.2.2

INFRASTRUCTURE MAINTENANCE QUARTERLY REPORT - MARCH 2016

REPORT No.: 16TS0075 KS:je COMMON No.: 1887505

DATE: 19/04/2016

Presenter: Manager Infrastructure Maintenance, Kerry Smith

Approved: General Manager Infrastructure, Luccio Cercarelli

PURPOSE

The purpose of this report is to provide an update on the activities of the Infrastructure Department – Infrastructure Maintenance section for the January to March 2016 quarter.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies of the City of Darwin 2012 – 2016 as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

2 Vibrant, Flexible and Tropical Lifestyle

Outcome

2.2 A sense of place and community

Key Strategies

2.2.3 Improve the landscaping, streetscape, infrastructure and natural environment

KEY ISSUES

Infrastructure maintenance completes routine, programmed and reactive maintenance tasks to ensure Council's parks and reserves, road and path network, stormwater drainage network and buildings are provided in a safe, clean and serviceable condition to meet the expectations of the Darwin community.

RECOMMENDATIONS

THAT the Committee resolve under delegated authority:-

THAT Report Number 16TS0075 KS:je entitled Infrastructure Maintenance Quarterly Report – March 2016, be received and noted.

BACKGROUND

Quarterly reports provide a snapshot of the activities for the Infrastructure Maintenance section within the Infrastructure Department and are provided to inform Council of activities undertaken.

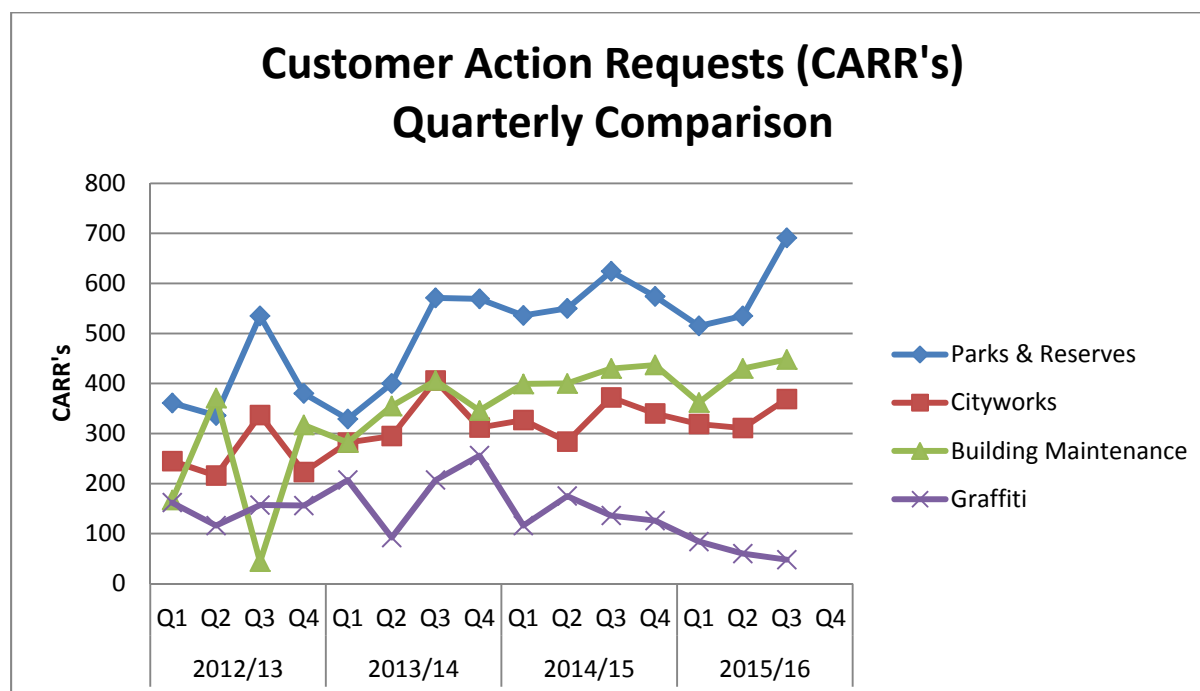
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DISCUSSION

The following information provides a broad snapshot of activities and tasks undertaken through Council's Infrastructure Maintenance section. This report also provides some understanding of the variety and quantity of work completed within the section.

Infrastructure Maintenance completes routine, programmed and reactive maintenance tasks to ensure Council's parks and reserves, road and path network, stormwater drainage network and buildings are provided in a safe clean and serviceable condition to meet the expectations of the Darwin community.

In addition to maintenance programs, capital works projects are completed with in-house staff and contractors.

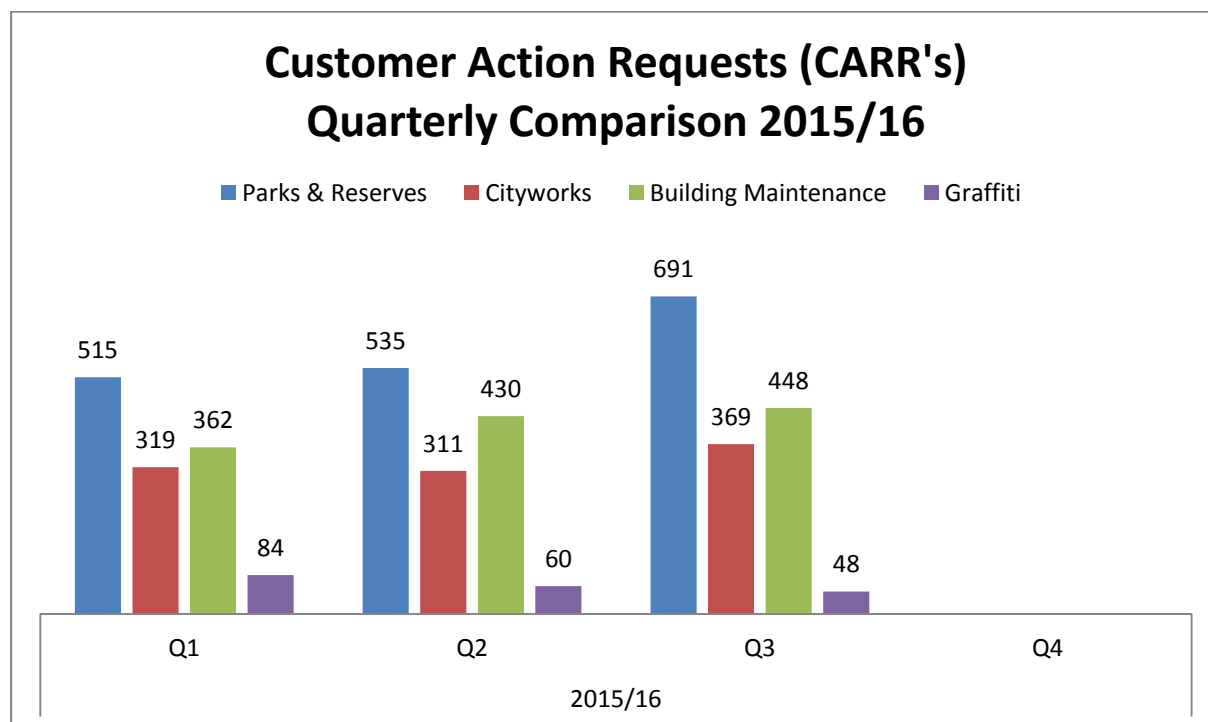


The above graph represents a quarterly comparison of CARR's since the 2012/13 financial year. The number of CARR's across all sections is showing a rising trend except for Graffiti. Graffiti has had a steady decrease across the previous five (5) quarters, with this quarter reaching the lowest value. The reason for the decreasing trend is thought to be a combination of greater proactive response reducing the occurrence along with a decreasing trend of motivation towards Graffiti from the general community.

As CARR's are generated by request the number can be heavily influenced by time specific factors such as a below average wet season.

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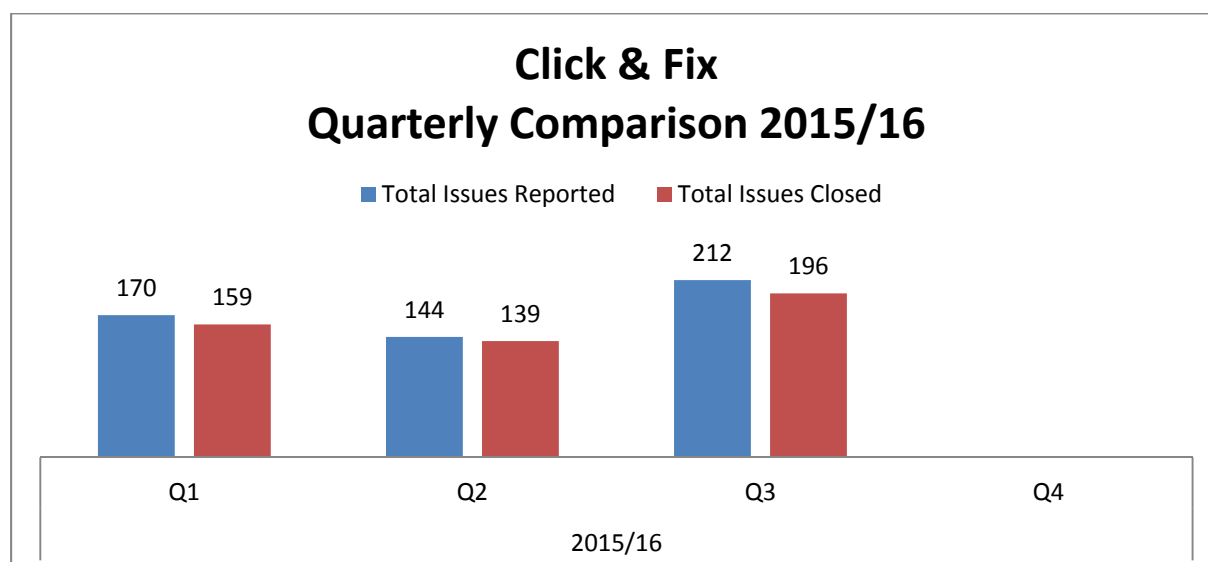
The distribution of CARR's is shown below. Infrastructure Maintenance processed an average of 27 CARR's per each working day in the quarter. Currently staff are assessing the cause of the increase of CARR's shown for Parks and Reserves.



DARWIN CLICK & FIX

Below are the Darwin Click & Fix statistics for the current financial year for Infrastructure Maintenance Department.

At the end of the 3rd quarter 16 issues remained unresolved for the year to date. Infrastructure Maintenance processed an average of four (4) Click and Fix reports per each working day in the quarter.



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A brief summary of works completed by business units within the section in the January to March 2016 quarter is as follows.

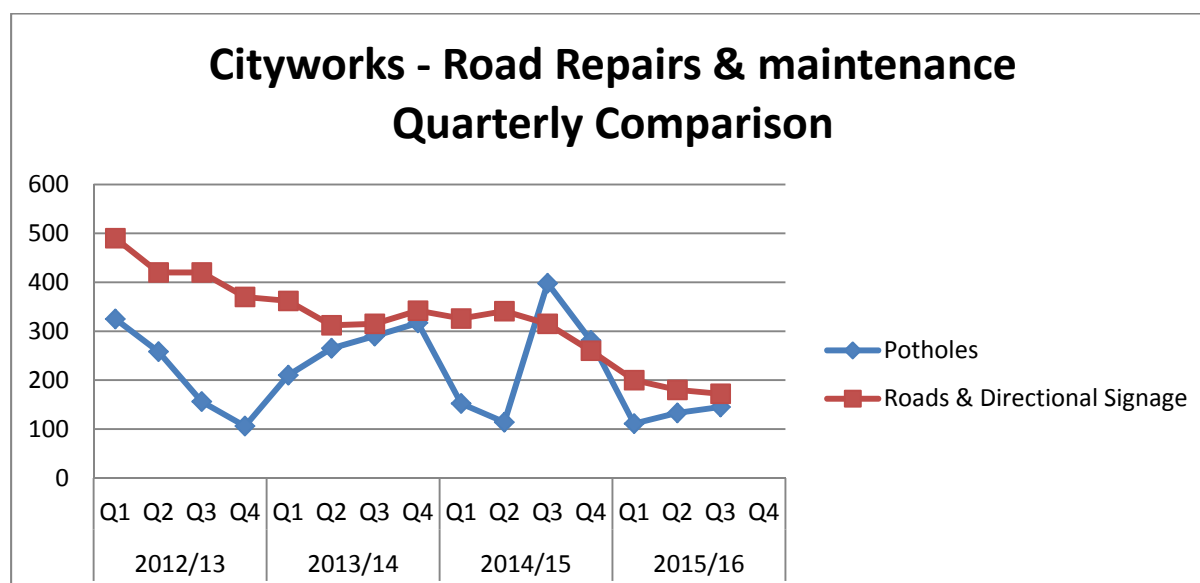
CITYWORKS

Cityworks actioned 369 Customer Action Requests this quarter in addition to programmed and reactive maintenance tasks.

Repairs and Maintenance

- Approximately 60 lineal metres of kerb and gutter replaced
- 420 lineal metres of 1.2m footpath replaced
- Approximately 5m² exposed aggregate concrete footpath replaced
- Storm water network repairs:
 - 50 side entry pits (SEPs) replaced
 - 40 side entry pits repaired
 - Approximately 180 side entry pits cleared
- Installation of new bollards to one (1) walkway
- Approximately 145 potholes repaired
- 180 metres CCTV investigation on the storm water drainage system
- 172 road and directional signs repaired or replaced
- 15 debris bars installed to SEPs

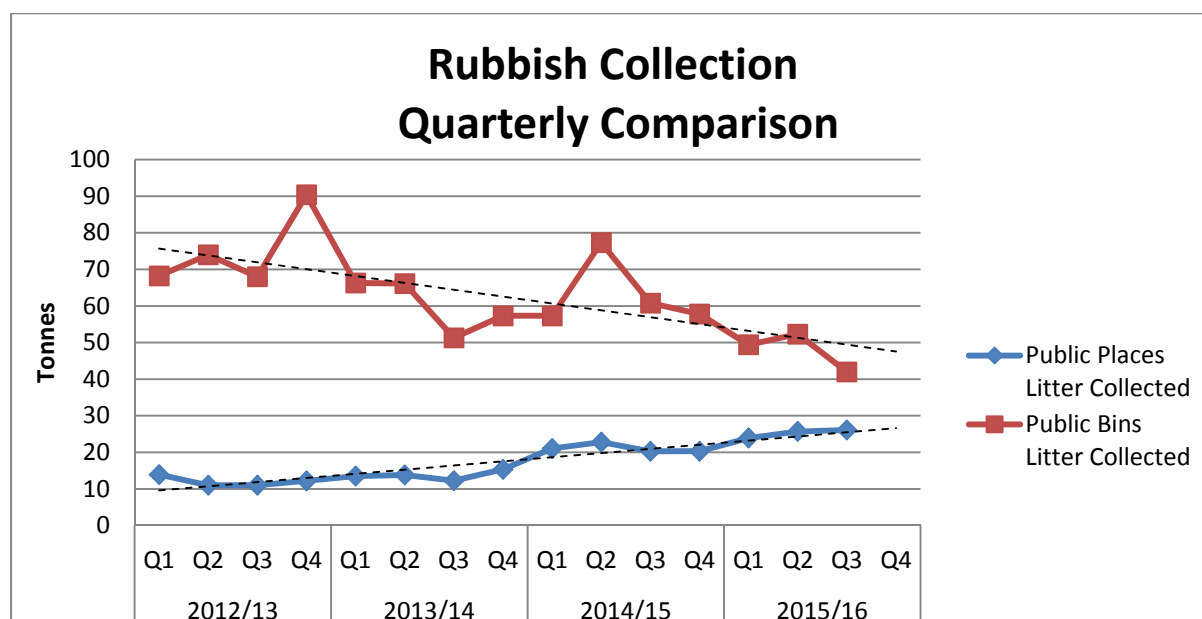
There is an increase in pothole repairs during the third quarter in previous years due to the wet season conditions however this year the wet season has seen a very low rainfall and has resulted in a decline in pothole numbers. The road and directional signage works are continuing to see a decreasing trend, currently there are no indicators for the decrease.



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Rubbish Collection

Foot patrols through the CBD and foreshore reserves collected approximately 26.1 tonnes of litter. 2264 public litter bin collections occurred in the quarter resulting in 42 tonnes of rubbish being removed.



Current trend lines indicate litter collected from public places is increasing while litter from public bins is decreasing, although there was a slight increase this quarter. Staff have not identified any clear drivers for this trend.

Major Works Undertaken for the Quarter

- Only 2 projects left to asphalt with work starting on the chip seal as part of the Road Reseal Program
- Line marking program commenced
- Reconstruction of Jingili Terrace, Dripstone Road, Atkins Road culverts and Ruddick Street drainage

Major Works Programmed Within the Next Quarter

- Line marking program continuation
- Continuation of road reseal program
- West Lane asphaltting
- Mitchell Street asphaltting between Herbert Street and West Lane

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PARKS AND RESERVES

The Parks and Reserves unit actively maintains approximately 574 hectares of open space. The section actioned 691 Customer Action Requests in addition to proactive maintenance tasks. These requests covered irrigation repairs, vandalism repairs, grass cutting and verge maintenance, tree pruning/removals, stump grinding, fence repairs, litter collection and playground maintenance.

The Parks and Reserves section is divided into precinct areas as follows:

- The CBD Precinct maintains 132 hectares in 202 separate areas of public open space including, ovals, road reserve, roundabouts, shopping centre garden beds and street gardens throughout the suburbs of Darwin CBD, Larrakeyah, Bayview, Stuart Park, The Gardens, Parap, Woolner, Winnellie and Berrimah.
- The Central Precinct team maintains 117 hectares in 152 separate areas throughout Nightcliff, Fannie Bay, Coconut Grove, Rapid Creek, Alawa and Nakara.
- The Northern Precinct team maintains 222 hectares in 85 separate areas throughout Anula, Wulagi, Leanyer, Malak, Karama Jingili, Moil, Wagaman, Wanguri and Tiwi.
- The Urban Bushland team is responsible for weed control/herbicide application, litter control, planting programs, re-vegetation and walk trail maintenance to approximately 103 hectares of natural and remnant bush.
- The turf and irrigation team maintains all irrigation systems at approximately 400 sites and 17 active sports reserves within the Municipality.

Major Works Undertaken for the Quarter

- Annual audit of irrigation systems complete
- Darwin General Cemetery access road resurface and signage refurbishment
- Vesty's beach interpretive signage installed
- Peace park, Leanyer, sub surface irrigation to playground area
- Nightcliff foreshore bollards renewal project complete
- Yankee Ponds conservation area fencing and bollards installation complete

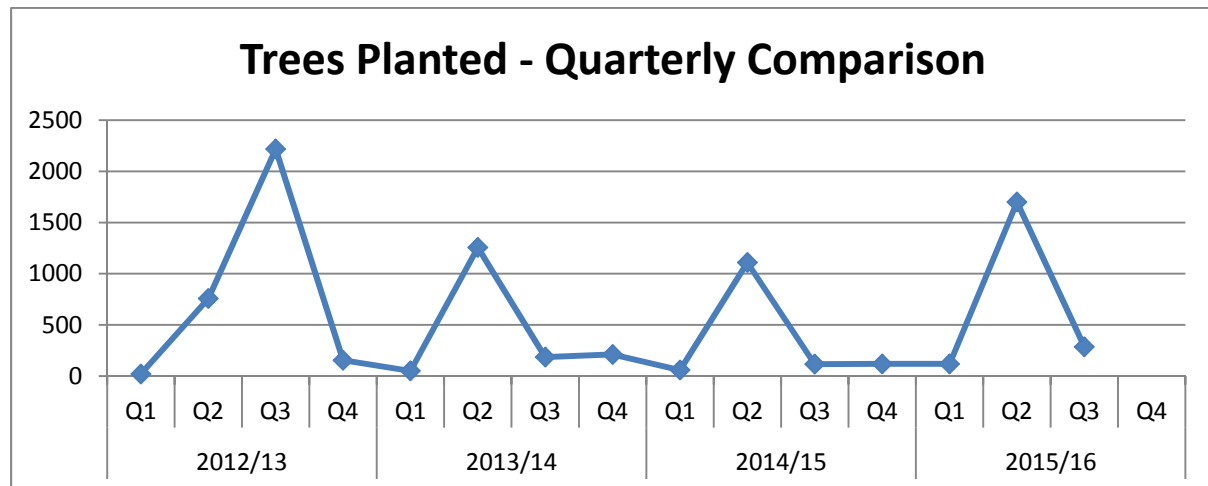
Major Works programmed for the next quarter

- East Point walking trail resurfacing
- Muirhead stage one (1) handover
- Mowing contract tender to be advertised
- Seabreeze festival, ANZAC Day commemoration and start up for festivals and markets season

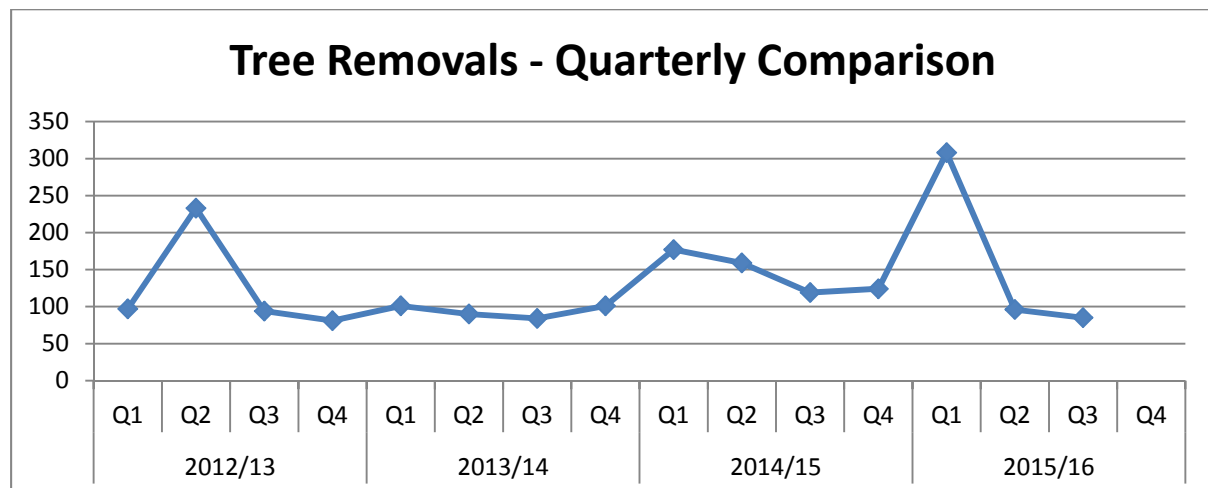
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Tree removal and planting statistics

286 trees planted this quarter. The graph shows a common fluctuation of high values in second quarter of each financial year which represents the appropriate seasonal conditions for tree planting. Tree planting continued deeper into the third quarter this year due to the poor wet season.



There were 85 trees removed this quarter which was a small decrease from the previous quarter of 96.



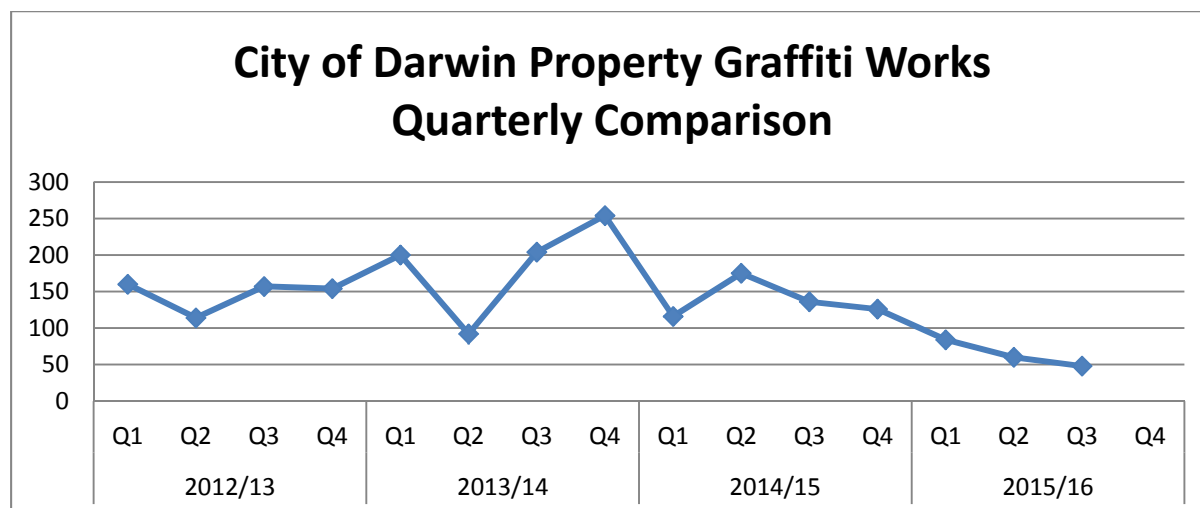
Current trend identifies tree removals and planting approximately similar to previous years with planting numbers easily eclipsing the ideal standard of two planted for each one removed.

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BUILDING SERVICES

Building services responded to 448 Customer Action Requests over the quarter in addition to proactive maintenance tasks.

Council's Graffiti Team responded to 48 Customer Action Requests relating to City of Darwin.



Major Works undertaken for the Quarter Include

- Calling of public tenders for air conditioning services and electrical services
- Jingili Water Gardens reroof and associated works
- General Manager Community and Cultural Services Office refurbishment
- New carpets and painting to IT & Community & Cultural Services offices
- Parap Recreation Community Centre refurbishment
- IT Office refurbishment

Major Works Programmed Within the Next Quarter

- New Panel Contracts for air conditioning services and electrical services
- West Lane Car Park air conditioning chilled water pipe replacement
- Casuarina Library mechanical plant room modifications and new supplementary air conditioning to community meeting room
- Proposed new shed for community and cultural services at operations centre
- Annual maintenance shut down at Casuarina Pool
- LED lighting to Chambers, function room, meeting rooms and CEO areas

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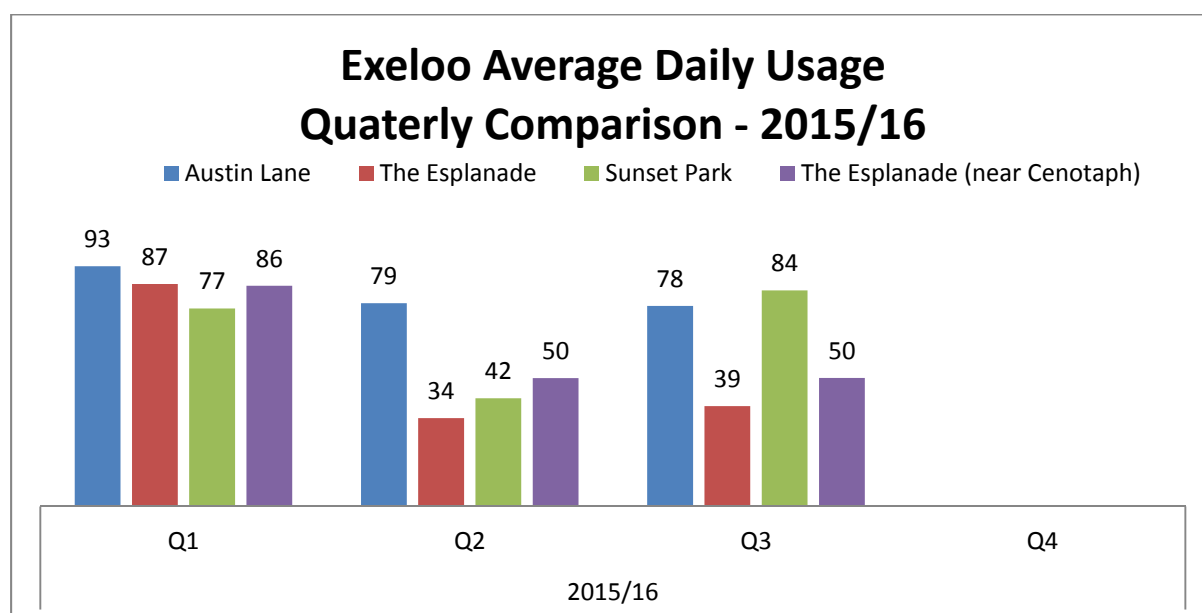
Public Toilet Usage

Council operates six public exeloo toilets and four of these are automated to collect statistics on daily usage rates.

The facilities are accessible 24 hours a day, 7 days a week.

Average daily usage rates for the quarter were;

- Austin Lane Exeloo – 78 per day.
- Esplanade Exeloo – 39 per day.
- Sunset Park Exeloo – 84 per day.
- Esplanade Exeloo (near Cenotaph) – 50 per day.



CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- Team Coordinator Parks & Reserves
- Coordinator Civil Infrastructure
- Team Coordinator Building Services
- Team Leader Cleaning Services

POLICY IMPLICATIONS

All works undertaken by the section are in accordance with Council policies.

BUDGET AND RESOURCE IMPLICATIONS

Infrastructure Maintenance operates within the current operational and capital works budgets.

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SUBJECT: INFRASTRUCTURE MAINTENANCE QUARTERLY REPORT - MARCH 2016

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

Works undertaken through Infrastructure Maintenance are in accordance with legislative requirements and to mitigate Councils risk wherever possible.

ENVIRONMENTAL IMPLICATIONS

Environmental consideration forms part of the quadruple bottom line reporting which guides service levels, procedures and work activities.

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

KERRY SMITH
MANAGER INFRASTRUCTURE
MAINTENANCE

LUCCIO CERCARELLI
GENERAL MANAGER
INFRASTRUCTURE

For enquiries, please contact Kerry Smith on 8980 3654 or email:
k.smith@darwin.nt.gov.au.

**ENCL: ENVIRONMENT & INFRASTRUCTURE
NO COMMITTEE/OPEN**

AGENDA ITEM: 10.2.3

**INFRASTRUCTURE - DESIGN, PLANNING & PROJECTS - MARCH 2016 QUARTERLY
REPORT**

REPORT No.: 16TS0068 DL:jg

COMMON No.: 1832896

DATE: 19/04/2016

Presenter: Manager Design Planning & Projects, Drosso Lelekis

Approved: General Manager Infrastructure, Luccio Cercarelli

PURPOSE

The purpose of this report is to provide an update on the activities of the Infrastructure Department Design, Planning & Projects Section for the January to March 2016 Quarter.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies of the City of Darwin 2012 – 2016 as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

2 Vibrant, Flexible and Tropical Lifestyle

Outcome

2.2 A sense of place and community

Key Strategies

2.2.3 Improve the landscaping, streetscape, infrastructure and natural environment

KEY ISSUES

- Quarterly reports on the activities of the Design, Planning and Projects section of the Infrastructure Department are provided to inform Council.
- Highlights, milestones and progress on projects for the quarter are summarised in the body of this report.

RECOMMENDATIONS

THAT the Committee resolve under delegated authority:-

THAT Report Number 16TS0068 DL:jg entitled Infrastructure – Design, Planning & Projects – March 2016 Quarterly Report, be received and noted.

BACKGROUND

Quarterly reports on the activities of the Design, Planning and Projects section of the Infrastructure Department are provided to inform Council.

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 REPORT NUMBER: 16TS0068 DL:jg
 SUBJECT: INFRASTRUCTURE - DESIGN, PLANNING & PROJECTS - MARCH 2016
 QUARTERLY REPORT

The key roles of the Design and Projects teams is to undertake technical investigations, provide responses to external and internal stakeholder enquiries, facilitate designs and undertake construction of items both within the City of Darwin's Capital Works programs and as required.

The key role of the Planning team is to assess and respond to Development Applications to the Northern Territory Government's Development Assessment Services, to report on Development Applications of particular significance to the City of Darwin and to assess, respond to and report on Alfresco Dining and Signage applications, respond to Northern Territory Planning Scheme amendment proposals and deal with Strategic Planning matters, if and when they arise.

DISCUSSION

The following provides highlights of activities which have occurred in the Section during the January to March 2016 Quarter and is provided for Council's information:

Issues Investigated

- Approximately 40 traffic and associated road safety issues have been raised by members of the community and other stakeholders. These issues include;
 - pedestrian and road safety matters,
 - on-street parking,
 - speeding vehicles,
 - disability access, and
 - stormwater drainage problems.
- Of the 40 issues received around 35 have been, or are in the process of being resolved with the remainder under investigation and assessment.
- Any sites identified as requiring remedial works resulting from investigations will be prioritised against other works and programmed according to available budget in current or future years.

CBD Parking Strategy Implementation Plan

- Council endorsed proceeding with the proposed Darwin CBD on-street parking changes and the proposed changes associated with the review of taxi parking in the Darwin CBD that went to community consultation in the previous quarter.
- The on-street parking changes (including zone and disabled parking changes) will commence by 1 July 2016.
- The taxi parking changes will be completed by 1 July 2016.

Darwin Bike Plan

- Work continued on the implementation of a number of the construction and non-construction projects identified within the Darwin Bike Plan-Implementation Plan adopted by Council. These include the Abala Road shared path extension to the new Northern Territory Government path to be installed along Henry Wrigley Drive.

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 QUARTERLY REPORT

Traffic Signals

- Work continued on the delivery of projects within the upgrade program for the City of Darwin's traffic signals. These include the Smith Street/Knuckey Street signals modifications and Lee Point Road/Parer Drive signalised intersection improvements.

Nightcliff North Rock and Sunset Park Seawalls

- Construction commenced on both the Nightcliff North rock seawall – Stage 1 and Sunset Park seawall design works are progressing and treatment of stormwater drainage outfalls to be implemented subject to budget.

Darwin City Centre Master Plan

- Work continued on the delivery of a number of Darwin City Centre Master Plan projects, including the Smith Street/Daly Street intersection upgrade, Smith Street/Bennett Street and Smith Street/The Esplanade intersection upgrades and Bicentennial Park Community Play Space. Council has endorsed the construction of this play space.
- The Darwin CBD Road Hierarchy Study identified within the Darwin City Centre Master Plan was commissioned and work is proceeding.

Proposed New Traffic Signals and Extension of Kurringal Court Extension at Fannie Bay North

- Council endorsed the extension of Kurringal Court to the Dick Ward Drive/Buntine Avenue intersection and the installation of traffic signals at this location.

Ryland Road Black Spot Projects

- Design/documentation commenced for the Ryland Road Black Spot Projects which were previously approved by Council for implementation.
- It is envisaged that construction will commence in the next Quarter.

Cavenagh Street/Bennett Street Intersection Upgrade

- Council was successful in obtaining a grant of \$1 million to construct this project. Design and documentation has commenced with tenders estimated to be called by July 2016.

Dinah Beach Road Upgrade

- Design and documentation has commenced.

Development Applications

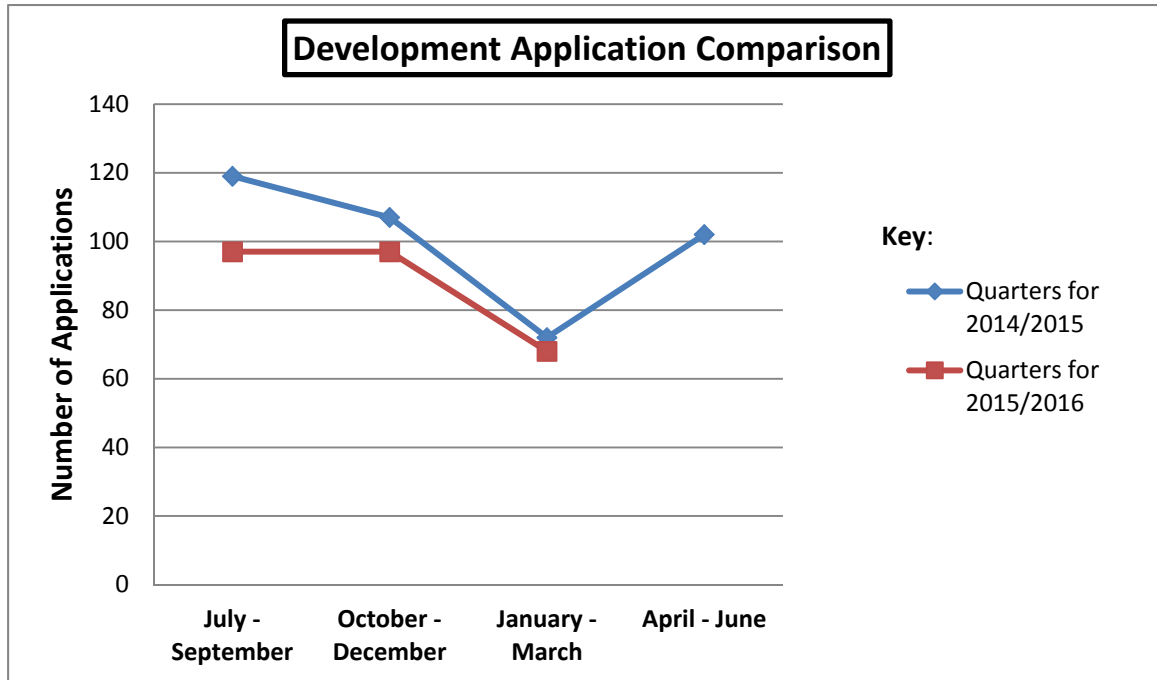
Council endorsed 68 letters in response to Development Applications made to the Northern Territory Government Development Assessment Services, for the Darwin Municipality in the January to March 2016 quarter.

Of the 68 Development Applications, 17 were the subject of individual reports to Council. Of the 17 reports presented to Council:

- Six related to Strategic Planning matters,

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 QUARTERLY REPORT

- Five were Summary Reports,
- Three were generic development application reports, and
- Three were related to Rezoning/Planning Scheme Amendments.



Sign Applications

19 sign applications were received and considered against the City of Darwin Policy No: 042 - Outdoor Advertising Signs Code in the quarter.

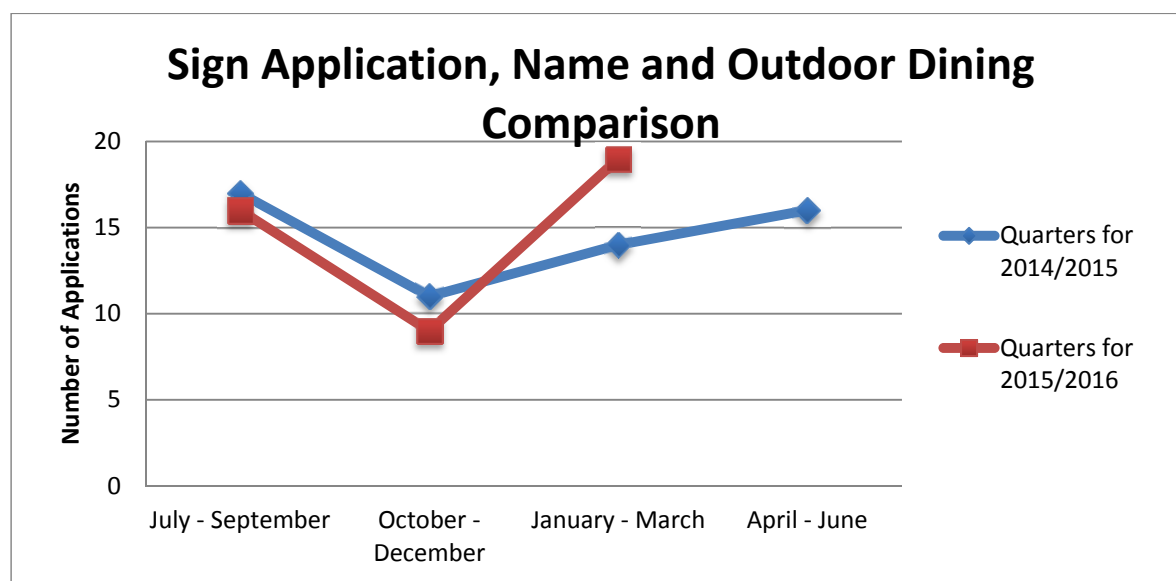
Of the 19 sign applications:

- 10 applications were the subject of individual reports to and considered by Council.
- Five applications were approved by staff. These included blue finger signs, moveable signs, transferring existing signs to new businesses and a sign for Surf Life Saving Club for the new shed at Lake Alexander (permitted within the lease with the City of Darwin and compliant under the Signs Code)
- Four applications are still being worked on. Applications are awaiting extra information and all require reports to Council in the next Quarter.

Outdoor Dining

One application was received for Outdoor Dining (non-licensed) during this period from The Lucky Bat, located at Pavonia Place, within the Nightcliff Shopping Centre. The application is still being finalised and is to be considered by Council at a future Council Meeting.

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 SUBJECT: INFRASTRUCTURE - DESIGN, PLANNING & PROJECTS - MARCH 2016
 QUARTERLY REPORT



CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- Strategic Town Planner
- Team Leader Design
- Team Leader Capital Works

POLICY IMPLICATIONS

All works and activities are undertaken in accordance with the City of Darwin's policies.

BUDGET AND RESOURCE IMPLICATIONS

All of the activities are undertaken in accordance with the City of Darwin's 2015/16 Capital Works and/or Operational budgets.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

Consideration of risk, legal and legislative requirements forms part of all considerations of works and activities undertaken by the section.

ENVIRONMENTAL IMPLICATIONS

Environmental considerations form part of all activities and assessments.

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QUARTERLY REPORT

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

DROSSO LELEKIS
MANAGER DESIGN PLANNING &
PROJECTS

LUCCIO CERCARELLI
GENERAL MANAGER
INFRASTRUCTURE

For enquiries, please contact Drosso Lelekis on 89300414 or email:
d.lelekis@darwin.nt.gov.au.

**ENCL: ENVIRONMENT & INFRASTRUCTURE
YES COMMITTEE/OPEN**

AGENDA ITEM: 10.2.4

WASTE AND RECYCLING QUARTERLY REPORT - JANUARY TO MARCH 2016

REPORT No.: 16TS0065 NN:tz

COMMON No.: 1738353

DATE: 19/04/2016

Presenter: Manager - Technical Services, Nadine Nilon

Approved: General Manager Infrastructure, Luccio Cercarelli

PURPOSE

The purpose of this report is to provide an update on Council's waste management and recycling activities for the January to March 2016 quarter.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies of the City of Darwin 2012 – 2016 as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

3 Environmentally Sustainable City

Outcome

3.1 Council's carbon footprint reduced

Key Strategies

3.1.3 Reduce Council's waste production

KEY ISSUES

- Council's waste management services including Shoal Bay Waste Management Facility (SBWMF) and waste collection continued throughout the quarter.
- Domestic kerbside waste, kerbside recycling and waste to the transfer station all decreased this quarter, however recovered recyclables at Shoal Bay and green waste mulching has continued with an increasing trend.
- Commercial waste to the lined landfill cells continued with the downward trend that has been observed in the past few quarters.
- There was a significant increase in asbestos disposal from a number of sources.

RECOMMENDATIONS

THAT the Committee resolve under delegated authority:-

THAT Report Number 16TS0065 NN:tz entitled Waste And Recycling Quarterly Report - January To March 2016, be received and noted.

PAGE: 2
 REPORT NUMBER: 16TS0065 NN:tz
 SUBJECT: WASTE AND RECYCLING QUARTERLY REPORT - JANUARY TO MARCH 2016

BACKGROUND

Quarterly reports on waste management and recycling activities are provided to inform Council of recycling and waste collection volumes and trends.

DISCUSSION

Shoal Bay Waste Management Facility

The Shoal Bay Waste Management Facility provides a transfer station and green waste disposal for domestic users, landfill for commercial users, recycling collection with sales facility and a landfill gas processing plant.

Gas Extraction Operations

On average, sufficient power is generated from the gas extraction process to power more than 1,100 Darwin homes per annum. The continuous benefits of converting landfill gas to energy include the reduction of harmful gas emissions to the atmosphere, green power production, and improvement of air quality surrounding the landfill. New wells were installed this quarter to increase the volume of gas captured.

At the time of writing the report, the LMS Energy Pty Ltd data for this quarter was not available.

Recycling Operations

Material for resale and recycling is collected at the recycle facility, either from materials being dropped off at the facility, or through the contractor collecting the material from the transfer station or inert waste landfill cell.

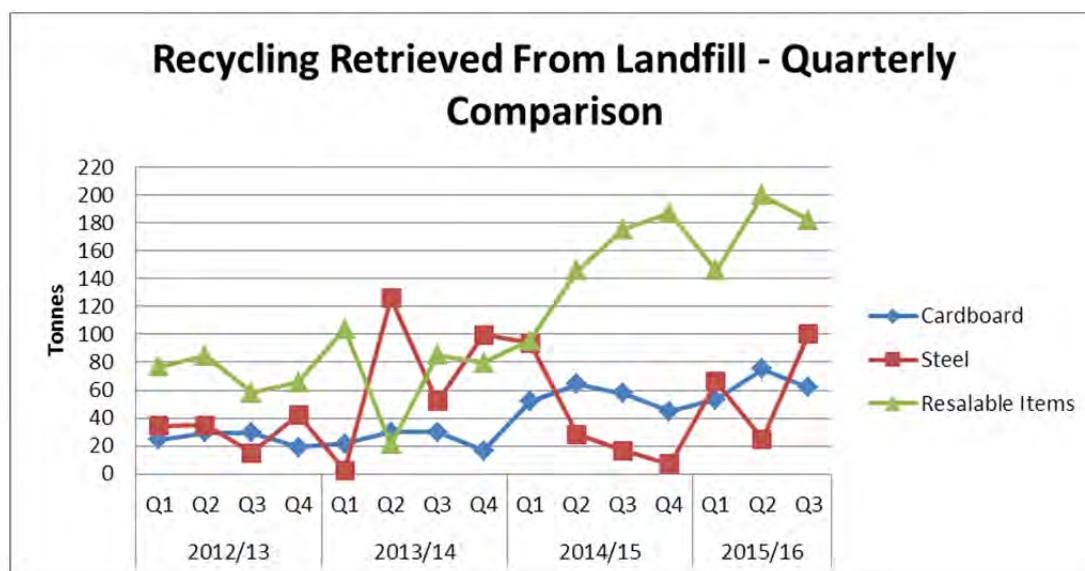
The volume of recyclables received at the recycling facility are listed for the quarter and graphed below.

- E-waste - 35 items collected for recycling with 23 being sold in the shop and the remaining 12 items being stored for recycling
- Recovered packaging recyclables – 18.2 tonnes of cardboard, 1.2 tonnes of glass and 1.1 tonnes of plastic
- Degassing - 112 white goods degassed and recycled with 4.25kg of gas recovered
- Compact fluorescent lamps (CFLs) – 45 were received and disposed

The below graphs represent the quantities retrieved from landfill and the transfer station each quarter since 2012/13.

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Resalable items and total cardboard retrieved both had a decrease from the previous quarter. Steel continued to show variation, with an increase this quarter. There is no consistent trend observed to be occurring with these materials.



Domestic Waste

City of Darwin provides a residential waste and recycling collection service through its contractor, Transpacific Cleanaway. City of Darwin residents are also provided with free disposal of domestic quantities of household waste at the transfer station via Shoal Bay Access Tags.

The chart below represents the breakdown of the disposal of domestic waste for the third quarter of the 2015/16 financial year. This quarter was similar to previous quarters however the ratios showed kerbside waste had a 5% increase and the transfer station had a 5% decrease in tonnages.

Education programs have continued to encourage appropriate recycling of materials, to reduce the amount of waste sent to landfill.



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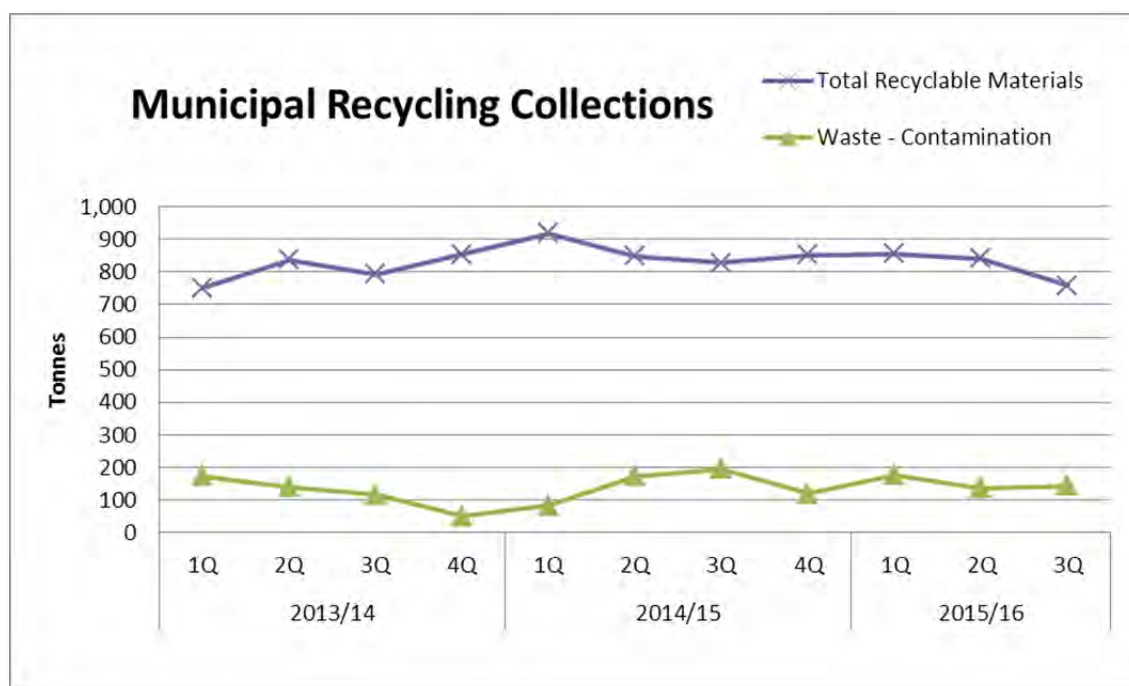
Domestic Waste - Kerbside Waste

The waste from kerbside and units collection this quarter was 4,429 tonnes, a slight decrease from the previous quarter and similar to the average of 4,304 tonnes.



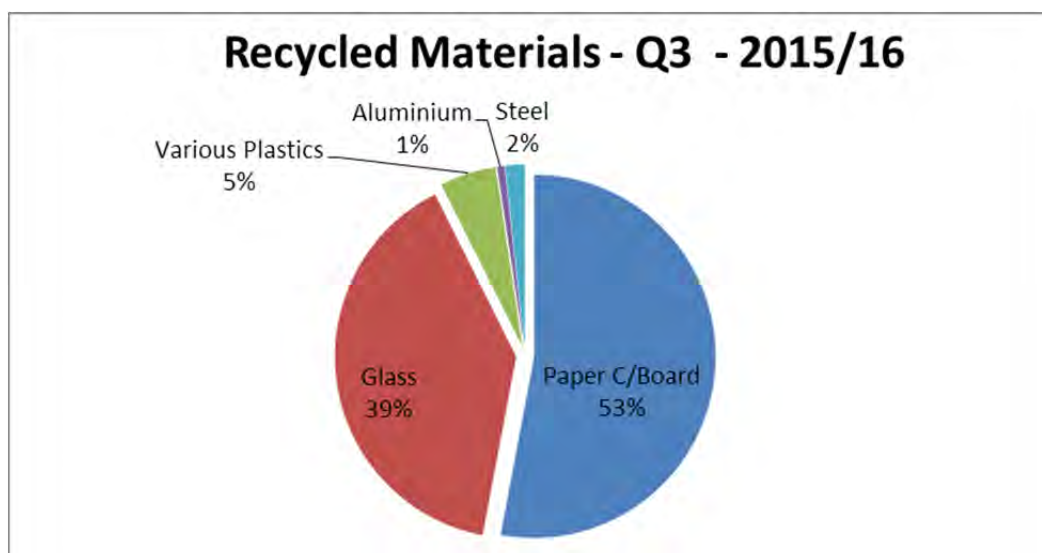
Domestic Waste - Recycling

Recycling decreased this quarter by approximately 10% to 757 tonnes, however the contamination remained consistent, so the decrease wasn't the result of increased contamination. The decrease is largely attributed to a 9% reduction in cardboard, and an 8% reduction in plastic from the previous quarter. The potential for trends will continue to be monitored to see where education programs could best be focused.



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All materials collected from kerbside recycling are taken to the Transpacific Cleanaway Materials Recovery Facility (MRF) where they are sorted, bailed and sent to market for reprocessing. The distribution of collected recyclable materials for the second quarter of the 2015/16 financial year can be seen in the following chart.



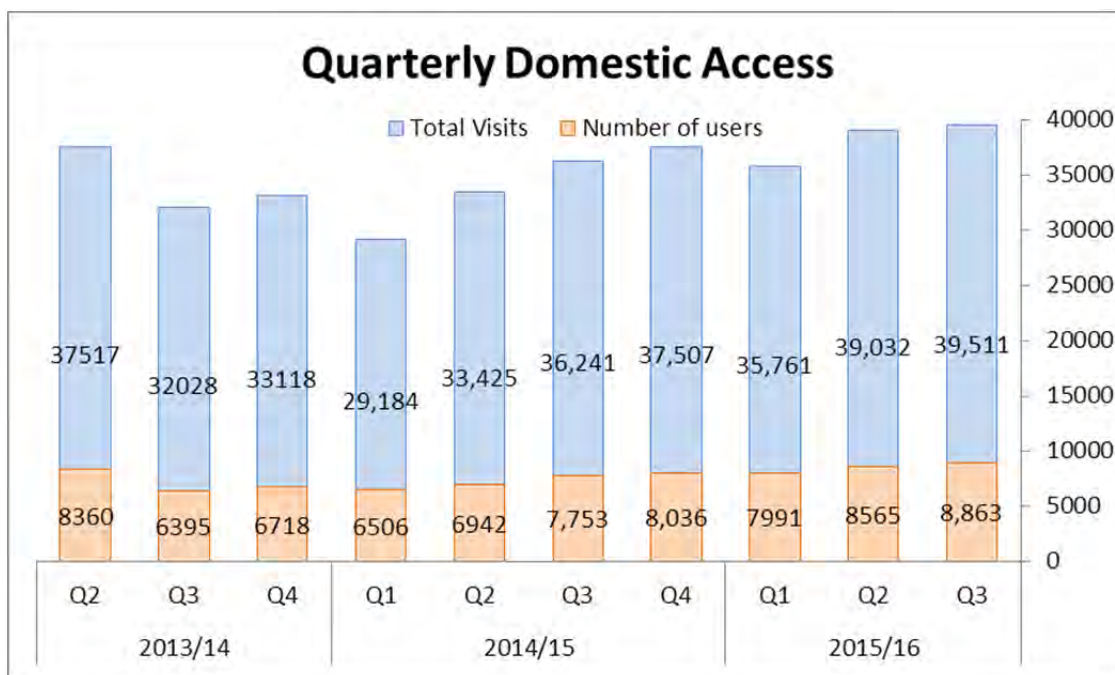
The education programs in place aim to both increase recycling rates and reduce the contamination present. Where properties are found to not be using the service appropriately, letters and educational information is provided to residents and body corporates (where applicable). This quarter, 30 unit complexes received 407 first warning contamination letters and 2 unit complexes received 13 second warning contamination letters. It is from the third occurrence within a three month period that a service may be suspended, however the issue is often resolved prior to this due to the notifications and information with the first two letters.

Domestic Waste - Access to Shoal Bay

There were a total of 39,511 visits to the Shoal Bay site in this quarter which includes access to the transfer station and to the green waste disposal area.

There has been an increase in the number of visitors from the previous quarter which is likely due to the wet season and is consistent with previous years over this period. There were 8,863 individual property users of the transfer station and green waste disposal areas for the 39,511 visits, representing an average of 4.5 visits per user over the quarter, or 1.5 visits a month.

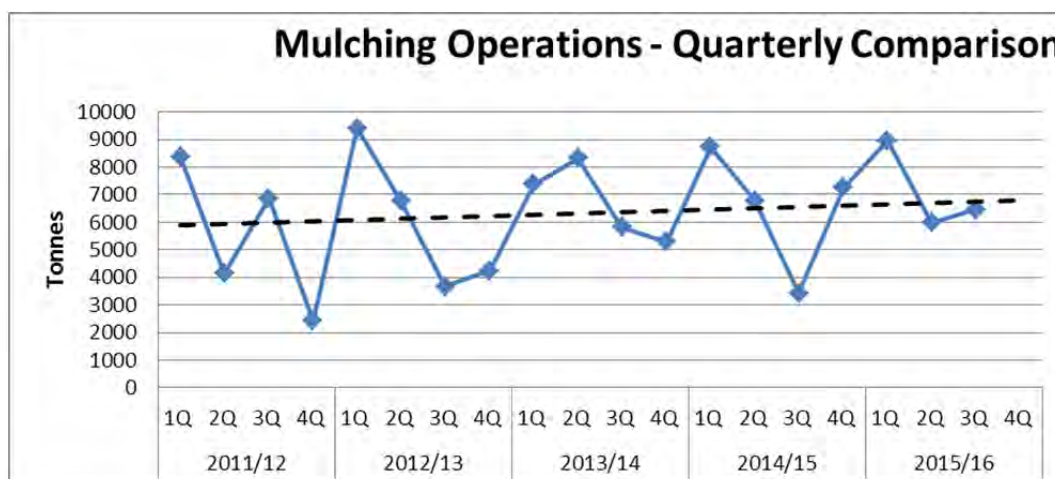
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Mulching Operations

The quantity of residential green waste mulched this quarter was 6,462 cubic metres. This was an increase of 474 cubic metres from the previous quarter and higher than the average amount of green waste processed each quarter over the last 4 years of 6,330 cubic metres. The volume varies significantly between quarters as it's dependent on the time that the mulching actually occurs. The contractor plans to improve this timing process to better reflect the disposal patterns for mulched green waste.

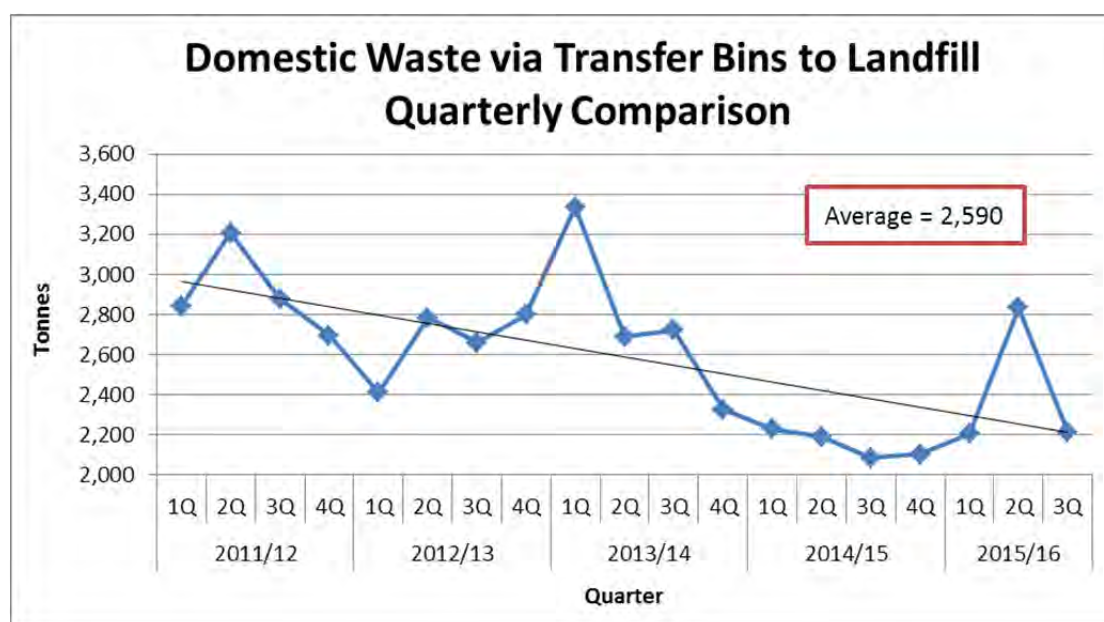
The dashed trend line on the graph below demonstrates a gradual linear increase over time which is consistent with there being an increase in new dwellings over this time.



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Domestic Waste – Transfer Station

There were 2,211 tonnes of domestic waste deposited in the transfer station bins this quarter, a decrease of 622 tonnes from the previous quarter. This quarter's volume was lower than the quarterly average, of 2,590 tonnes. As the overall access for domestic residents was high, the difference is consistent with the increasing trend in mulched green waste.



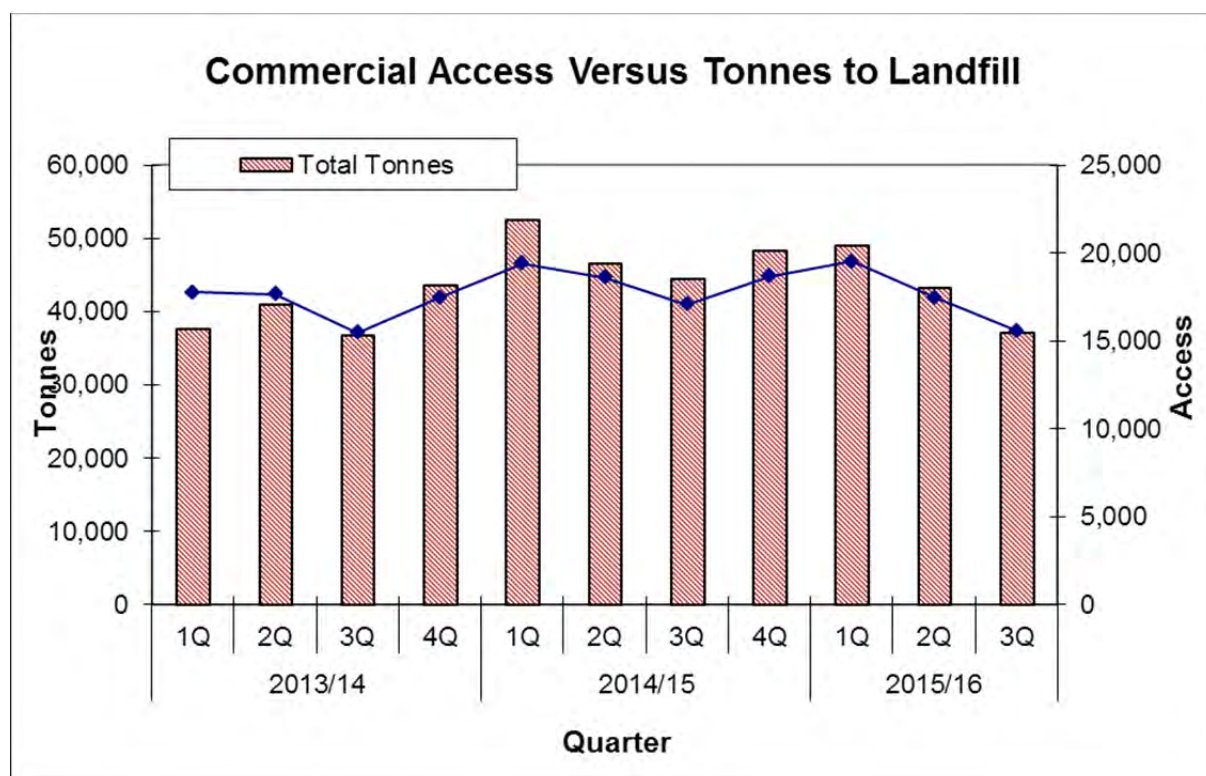
Fourteen letters were sent out regarding suspected misuse of domestic access tags (ie commercial, scavenging, illegal disposal of liquid waste), with two access tags being deactivated due to repeated misuse.

Commercial Access to Shoal Bay

Commercial access includes all commercial users and waste accepted from Palmerston, Litchfield and Dundee transfer stations. The average commercial load disposed of at Shoal Bay this quarter was 2.38 tonnes with a total of 37,043 tonnes brought in over 15,579 loads. This represents a decrease of 6,175 tonnes from the previous quarter and 1,917 less visits.

The data is consistent with the third quarter trend that each year experiences with low tonnes and visits, however the trend for increasing volume of waste is not increasing as would be expected due to growth. This is considered to be occurring due to less development occurring within the region as a result of slowing growth. It is not expected that waste volumes will continue to decrease from current levels but it is not expected to grow as was seen in previous years.

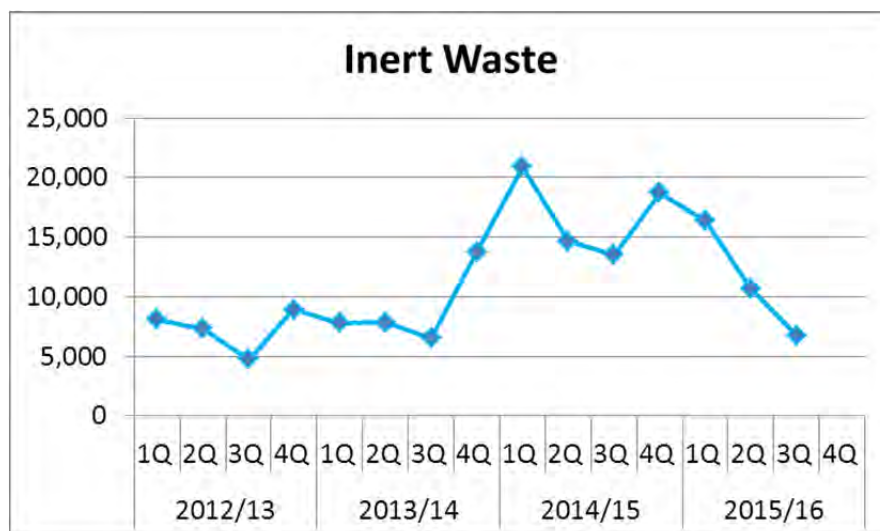
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Waste to Landfill by Waste Type

The majority of waste brought in to Shoal Bay is disposed of within the lined landfill cell, including all domestic waste and commercial green waste.

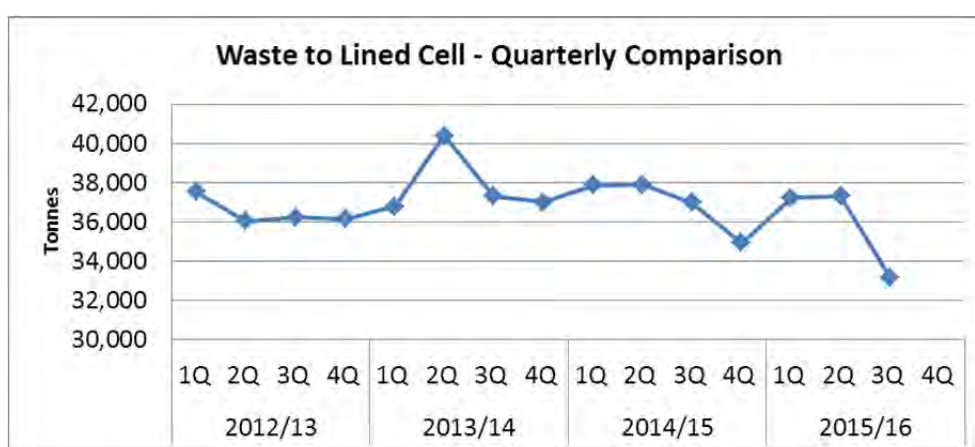
Inert material is disposed of in an unlined cell and includes items such as concrete, plastics and tyres. As indicated below, there has been another decrease from the previous quarter with volumes returning to similar levels seen throughout 2013. The increase in 2014/15 was linked to the type of work occurring at the Ichthys LNG Project at that time, which is not expected to occur again.



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 SUBJECT: WASTE AND RECYCLING QUARTERLY REPORT - JANUARY TO MARCH 2016

Additional efforts are being made on site to separate material types where re-use may be possible. This has always occurred for clean fill, with prior approval, however the separation of concrete for crushing and reuse on site is now also being trialed.

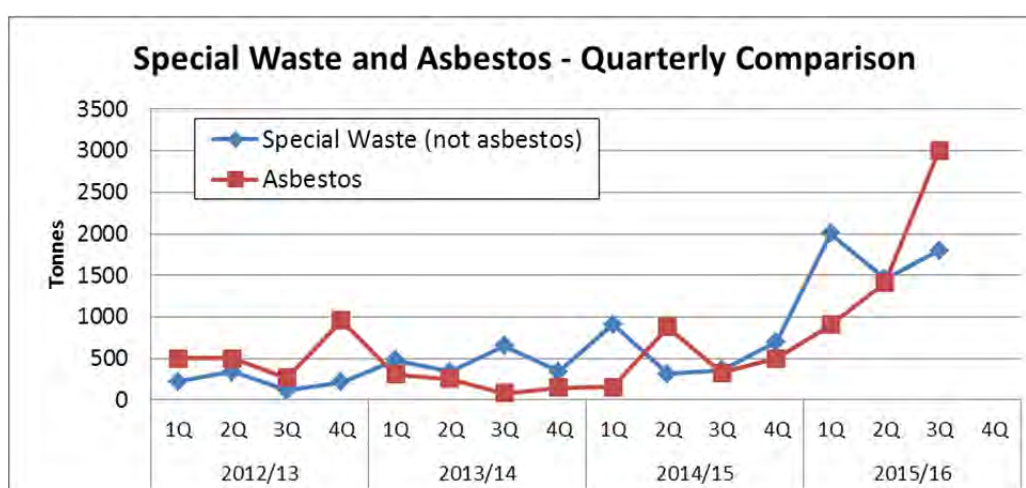
The quantity of waste to lined cell this quarter has had a decrease of 4,407 tonnes. This is the lowest recorded value over the last few years. The quantity of waste to the lined cell is closely monitored to ensure that adequate planning for future cells can occur. This financial year has a budgeted project for the design and commencement of construction for a new lined cell at Shoal Bay.



Special Waste and Asbestos

The quantity of asbestos increased this quarter by 1,586 tonnes. It's the largest total quantity recorded between the 2012/13 financial year and the current quarter and is just over double the previous quarter. This is due to a significant volume of material coming in from a couple of individual projects.

There was an increase in special waste by 334 tonnes. This quantity remains high recently and can be explained from the increased waste coming from the abattoir.



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 SUBJECT: WASTE AND RECYCLING QUARTERLY REPORT - JANUARY TO MARCH 2016

Community Education

Community education has continued through planned events undertaken by Council.

The activities conducted this quarter included:

- Australian Citizenship Ceremonies
 - 22 January and 21 March, Introduction of Waste and Recycling Information packs, 270 packs issued including give away items
- Defence Community Organisation Expo/Family Day
 - 6 February, Introduction of Waste and Recycling Information packs, 40 packs issued including give away items
- U3A (Seniors Group)
 - 18 February, Casuarina Library, information session on Waste and Recycling, 25 Seniors attended the one hour session
- Clean Up Australia Day
 - 5 March, provided free disposal to Shoal Bay Waste Management Facility, Operation Centre cleaning crew collected from various sites

The Cleanaway education program has conducted activities with the following school and community groups:

- Nakara Preschool
- Nakara Primary School
- Henbury School
- Anula Primary School
- Joey See Scouts Larrakeyah
- Essington Early Learning
- Nightcliff Primary School

Plans for the next quarter include continuing the current programs, improvements to the education centre at Shoal Bay, new calendar design development and revised education and information brochures.

CONSULTATION PROCESS

In preparing this report, information was obtained from Council's waste contractors:

- Northern Territory Recycling Services (NTRS)
- Landfill Management Services (LMS)
- Territoria Civil (Shoal Bay Contractors)
- Transpacific Cleanaway

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 REPORT NUMBER: 16TS0065 NN:tz
 SUBJECT: WASTE AND RECYCLING QUARTERLY REPORT - JANUARY TO MARCH 2016

POLICY IMPLICATIONS

Operations and activities are undertaken in accordance with Council policies.

The development of a Waste Management Strategy for City of Darwin is underway, which will also result in a new Waste Management Policy. These documents will include options and plans for Council to increase waste diversion and recycling within the Municipality.

BUDGET AND RESOURCE IMPLICATIONS

All activities are carried out within budgets.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

Nil

ENVIRONMENTAL IMPLICATIONS

Operations are conducted to minimise impacts on the environment through recycling initiatives, salvaging works and gas extraction from the landfill.

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

NADINE NILON
MANAGER - TECHNICAL
SERVICES

LUCCIO CERCARELLI
GENERAL MANAGER
INFRASTRUCTURE

For enquiries, please contact Natalie Dreibergs on 89300578 or email: n.dreibergs@darwin.nt.gov.au.

ENCL: YES	ENVIRONMENT & INFRASTRUCTURE COMMITTEE/OPEN	AGENDA ITEM: 10.2.5
ENERGY STRATEGY		
REPORT No.: 16TC0014 SG:nj	COMMON No.: 3258746	DATE: 19/04/2016

Presenter: Manager Climate Change & Environment, Shenagh Gamble

Approved: Executive Manager, Mark Blackburn

PURPOSE

The purpose of this report is to provide scope for the development of a City of Darwin Energy Strategy

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies of the City of Darwin 2012 – 2016 as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

3 Environmentally Sustainable City

Outcome

3.1 Council's carbon footprint reduced

Key Strategies

3.1.2 Reduce Council's energy consumption

KEY ISSUES

- Council spends over \$2 million on electricity annually
- Electricity prices will increase steadily in the coming years
- Solar panels to date are saving Council around \$80,000 annually
- Other energy efficiency measures undertaken over the past five years are estimated to save Council \$240,000 annually.

RECOMMENDATIONS

THAT the Committee resolve under delegated authority:-

- THAT Report Number 16TC0014 SG:nj entitled Energy Strategy, be received and noted.
- THAT the committee note the cost of the Energy Strategy will be met under the Climate Change & Environment operational budget for 2016/2017

PAGE: 2
 REPORT NUMBER: 16TC0014 SG:nj
 SUBJECT: ENERGY STRATEGY

BACKGROUND

At the October 2015 Environment & Infrastructure Committee meeting it was resolved:

THAT a report be prepared outlining the objectives, outcomes and costs associated with the development of an Energy Strategy for consideration in the 2016/17 budget deliberation.

DECISION NO. 21\3848

DISCUSSION

In 2012 City of Darwin conducted a Level 3 energy audit across its top 11 consuming sites. Numerous major recommendations have been implemented, with the exception of larger capital expenditure items such as upgrade of air conditioning at the Civic Centre.

City of Darwin spends over \$2 million annually on electricity, and despite a recent drop in electricity prices the overall trend for retail pricing is to increase steadily. The NT Government Electricity Pricing Order (EPO) covers most City of Darwin sites. The EPO regulates the retail electricity market and determines the prices, which the government owned retailer Jacana Energy must make available to customers. Additionally, a gradual deregulation of the retail market means that cost reflective contract arrangements may become necessary for some larger consuming sites (such as West Lane Car Park).

Many councils and other organisations are setting ambitious emissions reductions strategies including zero net emissions, 100% renewable, carbon neutral and even carbon positive. Some examples are provided below.

Case Study 1: Clean Energy Bundaberg (Bundaberg Regional Council)

Vision: To build an environmentally conscious, resilient region through the use of clean energy technologies, efficient energy and resource management, and broad-based business and community participation.

Goals:

- Implement clean energy policies that reduce Council's overall energy consumption and related operational costs based on clear, measureable targets.
- Reinforce Bundaberg Regional Council's commitment and leadership in clean energy related initiatives to raise consciousness and adoption of similar policies throughout the Bundaberg Region.
- Promote clean energy policies and the use of renewable energy sources to mitigate future risk related to the supply and demand of non-renewable fuel sources.
- Build awareness among our region's industry, business and broader community to increase knowledge and related clean energy investment.

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 REPORT NUMBER: 16TC0014 SG:nj
 SUBJECT: ENERGY STRATEGY

- Expand Council's clean energy practices to engage business and industry throughout the Bundaberg Region in ways that are meaningful to promote behavior change and uptake of clean energy technology/practices.
- Preserve and protect our natural environment through environmentally conscious energy management practices and efficient resource utilisation.

Objectives:

- Reduce Council's annual electricity consumption/demand and related operational costs.
- Achieve a Council-wide target of 5% fuel cost savings across Council's vehicle fleet.
- To be recognised as one of Planet Footprint's Australian Gold Standard Councils who are committed to energy efficiency and environmental responsibility by 2020.
- Collaboratively work with Council's retail energy suppliers to reduce energy demand, consumption, and related charges.
- Develop an educational energy management program for residents and businesses to follow and set a target for the number of participants.

A summary of projects under the Clean Energy Bundaberg Strategy is provided in **Attachment A** to this report.

Case Study 2: Byron Shire Australia's first Zero Emissions community

Byron Shire has set a goal to become Australia's first Zero Emissions community. This goal was developed in partnership with "Beyond Zero Emissions" (BZE). This goal extends beyond Council's own operations and into the community. As this project is still in its infancy, BZE will undertake community engagement to help develop the local strategy and plan. The program will be implemented over 10 years and may include:

- Renewable energy
- Retrofitting existing buildings
- Electric vehicles, cycle ways and public transport
- Land Use Management and vegetation
- Waste and wastewater management

Objectives of the Darwin Energy Strategy

- Identify options for cost reduction associated with energy expenditure
- Provide costed options for various energy reduction scenarios
- Determine greenhouse gas emissions reductions as a result of energy reduction initiatives
- Develop an implementation to deliver cost, energy, greenhouse gas emissions reductions

Excepted components of the Darwin Energy Strategy

- Emissions reduction and renewable energy targets
- Diversification of retail electricity options in the NT

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 REPORT NUMBER: 16TC0014 SG:nj
 SUBJECT: ENERGY STRATEGY

- Large scale solar projects
- Small scale solar power generation - for example continued rooftop solar installation, including covered car parks
- Energy efficiency
- Improved Heating, Ventilation, Air Condition (HVAC) systems
- Electricity storage including battery technologies
- Demand management
- Energy from waste through pyrolysis or other innovative technologies
- Bio waste collection & methane generation
- Financial options for funding of any of the above
- Divestment from companies supporting heavy polluters

Expected Outcomes of the Darwin Energy Strategy

- Reduction in costs associated with energy consumption
- Reduction in energy consumption
- Reduction in greenhouse gas emissions
- Fully costed implementation plan with strategies to achieve the above

Expected cost to develop the Darwin Energy Strategy

Developing an energy strategy requires a particular skill set and professional services will be sought. The estimated cost to develop an Energy Strategy does not exceed \$50,000. This amount has been allocated within the 2016/2017 Climate Change & Environment operational budget.

Time frames

The Energy Strategy will be developed in 2016/2017

CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- General Manager Infrastructure
- Capital Works Coordinator
- Business Support Officer
- Team Coordinator Building Services

In preparing this report, the following External Parties were consulted:

- Manager Climate Change and Sustainability Services, Ernst & Young

POLICY IMPLICATIONS

It is expected that a policy position on energy investment including investment in renewables will be developed through this process.

BUDGET AND RESOURCE IMPLICATIONS

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It is estimated the cost to develop an Energy Strategy will not exceed \$50,000. This amount will be met within the 2016/2017 Climate Change & Environment operational budget.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

Nil

ENVIRONMENTAL IMPLICATIONS

The development of an Energy Strategy will direct energy reduction across Council operations, resulting in reduced greenhouse gases and cleaner technologies.

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

SHENAGH GAMBLE
MANAGER CLIMATE CHANGE &
ENVIRONMENT

MARK BLACKBURN
EXECUTIVE MANAGER

For enquiries, please contact Shenagh Gamble on 89300530 or email: s.gamble@darwin.nt.gov.au.

Attachments:

Attachment A: A summary of projects under the Clean Energy Bundaberg Strategy

<http://www.bundaberg.qld.gov.au/clean-energy-bundaberg/projects>

CLEAN ENERGY BUNDABERG PROJECTS AND INITIATIVES

Council's growing need for a more cost effective, resilient and environmentally conscious future naturally supports a transition to improved energy and resource management. [The Clean Energy Bundaberg Strategy](#) sets the direction for delivering new and progressive energy management policies and measuring the resulting benefits in the years to come.

The projects and initiatives below demonstrate Council's commitment toward employing clean energy technologies to build an environmentally conscious, resilient region - with energy and resource management as a top priority.

Initiative	Description	Energy/Cost Savings
Transition to Contestable Energy Market	Council completed an electricity cost comparison for select sites based on gazetted prices (through Ergon) with the anticipated costs if these sites were transferred to the contestable market. The result of this analysis indicated the opportunity for substantial savings across 23 sites. Subsequent to a formal tender process, all identified sites were transferred to the contestable electricity market, with ERM Power selected as the retail electricity provider.	\$810,778 (from September 2014 through February 2016)
Cedars Road and University Drive Landfill Gas Flares	Installation of gas flaring systems that converts methane gas to carbon dioxide prior to release into the atmosphere. Methane is more efficient at trapping heat than	As at 26 Jan 2016, the Cedars Road gas flare system has processed 3,652,829 cubic meters of landfill gas, which converts to 26,020 tonnes of carbon dioxide equivalent (CO ₂ e).

	<p>carbon dioxide. The comparative impact of methane on climate change is more than 25 times greater than carbon dioxide over a 100-year period.</p> <p>Council is also planning future investigations into electricity generation using captured landfill gas at the University Drive landfill.</p>	<p>This equates to 667,179 tree seedlings grown for 10 years or 5,478 passenger vehicles removed from the road for one year.</p>
Community Energy Efficiency Program	<p>The Community Energy Efficiency Program (CEEP) provided federal funding toward the installation of energy efficient lights, timers and equipment in public infrastructure across the Bundaberg region. Outputs of the program included:</p> <ol style="list-style-type: none"> 1. Replacement of inefficient air conditioning in the Civic Centre 2. Installation of timers and sensors on 55 toilet blocks 3. Retrofit of 47 lights in streets and parks with LEDs 4. Installation of voltage optimisation units in 6 large buildings 	<p>\$79,000 p.a.</p> <p>297,000 kWh p.a.</p> <p>309 t of CO₂ p.a.</p>
Sensor Technology	<p>Installation of sensor technology throughout the Bundaberg Airport to more efficiently control lighting and fans in low traffic areas.</p>	<p>Approximately \$1800 p.a.</p>
Consolidation of Office Equipment	<p>Consolidated office equipment across whole of Council (i.e. printers, copiers and scanners).</p>	<p>53% reduction in related power use</p>

<p>Bundaberg Airport Energy Improvements</p>	<ol style="list-style-type: none"> 1. Testing and operational changes to the main air conditioning system: <ul style="list-style-type: none"> • Staged start-up to reduce morning peak demand • Optimised the daily operational time • Optimised % humidity threshold • On temperate days, the heating element has been turned off 2. Collaboration with airport café to stage kitchen equipment to further reduce peak demand 3. Rescheduled the irrigation booster pumps to operate during off-peak hours 4. Optimised hours of operation of main car park lighting 5. Through manual switching, eliminated unnecessary lighting and fan operation in rooms with adequate natural light and air flow (baggage arrivals) 	<p>Reduced electricity demand/ consumption and related costs.</p> <p>These improvements will position the Bundaberg Airport to receive its Airport Carbon Accreditation.</p>
<p>Information Technology - Power Management Policy</p>	<p>Council has recently completed an organisation-wide, standardised rollout of all end user technology equipment (i.e. desktops, laptops and monitors). As part of this standard operating environment, IT has implemented a power management policy, whereby desktop monitors are set to "sleep" mode after 5 minutes of inactivity.</p>	<p>Significantly reduced electricity consumption and related costs.</p>

Temperature and Humidity Control	Council has updated out-dated air-conditioning and humidity control systems in the main server room. The previous system has been replaced with temperature/load driven, in-row cooling units that operate much more efficiently and cost-effectively.	Reduced electricity consumption and related costs.
Bundaberg Library Building Management System	Installed building management system in the Bundaberg Library to better monitor and control air conditioning and manage peak demand.	Objective is to reduce electricity demand/consumption and related costs.
Solar Lighting	Installed 24 solar lights at the Bundaberg Recreational Precinct and Pioneer Park in Childers.	Reduced electricity consumption and related costs.
Recycling of Council Uniforms	Council has partnered with Dorcas Place – Anglican Parish of Bundaberg to convert overly worn Council uniforms to rag material, as well as provide a consistent source of rags to Council. This initiative promotes improved resource management and environmental consciousness through recycling and waste minimisation. Furthermore, this initiative provides additional employment opportunities for community residents.	Intangible benefits include Council meeting its social and environmental responsibility by recycling overly worn uniforms.

OPEN SECTION

E&I4/6

Environment & Infrastructure Committee Meeting – Tuesday, 19 April 2016

11. INFORMATION ITEMS

Nil

12. GENERAL BUSINESS

13. CLOSURE OF MEETING