

# Economic Impact of COVID Stimulus Package 2020

October 2020

prepared by **.id**

© copyright .id (the population experts)

# Table of contents

1.	Introduction.....	3
1.1	Overview.....	4
1.2	Methodology.....	4
1.3	Terminology.....	5
1.4	Disclaimer.....	6
1.5	Local Government profile.....	<b>Error! Bookmark not defined.</b>
1.5.1	Economic and investment activities.....	<b>Error! Bookmark not defined.</b>
1.5.2	Direct economic contribution.....	<b>Error! Bookmark not defined.</b>
1.5.3	Worker profile.....	<b>Error! Bookmark not defined.</b>
1.6	Economic impact of operations.....	7
1.7	Economic impact of capital works program.....	<b>Error! Bookmark not defined.</b>
1.8	Total economic impacts.....	16

# 1. Executive Summary

Darwin City Council delivered a number of different economic stimulus programs and investments in the June Quarter 2020 aimed at boosting confidence and supporting jobs in the wake of the COVID pandemic.

The combined investment in the quarter is estimated to have generated \$3.9 million in gross value added to the local economy in 2019/20 (direct and flow on indirect). The package is estimated to have supported:

- 201 jobs in the June 2020 Quarter (of which 123 are directly and indirectly related to the Green Army program), and
- 79 jobs in the September quarter.

In addition, the Council also fast-tracked approval of the \$25m redevelopment of Casuarina Pool. This is set to create 193 jobs during the construction phase and support approximately 85 ongoing direct and indirect jobs post development.

The stimulus measures appear to have been successful beyond their individual direct and indirect impacts. The Northern Territory economy, of which the City of Darwin represents 39%, demonstrated very strong Retail figures over the June quarter and a large rebound in Accommodation and Food Services and Arts and Recreation sectors.

## 2. Introduction

### 2.1 Overview

In April 2020, the City of Darwin announced a number of investments, projects and services to help stimulate the economy and maintain community confidence in the wake of the COVID pandemic. Darwin City Council have requested an economic analysis of these actions made by Council. The aim of this analysis is to highlight the important role Local Government plays in the local economy.

To meet this request, .id has undertaken a quantitative analysis of key actions delivered during the 2020 June and September Quarters and ongoing actions committed to. These actions include:

- Rate deferrals
- Rate waivers due to hardship
- Waiver of parking fees
- Council property rent relief
- Other fees and infringement waivers
- Community grants
- Green Army program of 100 casual employees
- MyDarwin voucher program
- Increased security patrols
- Emergency car hire to support social distancing
- Capital project – Casuarina Pool Redevelopment.

Some of these actions have wider benefits that can no be easily quantified. For this reason, the report also includes a statement on wider benefits.

### 2.2 Methodology

.id have used an economic impact model that is specifically tailored to the Darwin City economy by using local input-output tables developed by NIEIR. An input-output matrix describes how the different industries in an economy interrelate, and how supply chains operate in the local area. Using input-output tables, multipliers can be calculated to provide a simple means of working out the flow-on effects of a change in output in an industry on one or more of imports, income, employment or output in individual industries or in total.

The economic impact model is updated each year to take account of changes to the local economy. Multipliers for a region may change over time in response to changes in the economic and industry structure as well as price changes. Some reasons for a multiplier to change include:

- ▣ overall size and economic diversity of the region's economy
- ▣ changes to industry structure (e.g. export/import, mix of labour/capital inputs, productivity changes)
- ▣ household income and household spending patterns

For example, if the retail industry takes 15 jobs to produce \$1 million of sales in 2006, and productivity increases by say 50% through 2016, then only 10 jobs are required to produce \$1 million of sales. The job multiplier falls from 15 to 10 jobs per \$1 million of sales.

The economic contribution and impact analysis were based on inputs obtained from Darwin City Council.

Other methodology points to be noted are:

- ▣ Economic impacts are a rapid estimate only. A more comprehensive analysis would require more specific information including industries affected, number of businesses/community groups who may have closed if not for assistance, consumption and savings patterns of local residents, local vs non-local spend in the City of Darwin.
- ▣ Contribution to GRP is based on Total Industry Value Added.

Note on evaluation: The economic impacts of actions are presented in isolation i.e. without evaluation of benefit-cost of forgone investment. For example, the decrease in parking fee revenue will have a substantial impact on future council expenditure/investment in capital works or services delivery in the year ahead. This may or may not outweigh the economic impacts stemming from the stimulus action.

## 2.3 Terminology

- **Direct impacts:** represent the initial change in the industry selected. This refers to expenditure associated with the industry (e.g. labour, material, supplies, capital).

- **Indirect impacts (Industrial):** The direct impacts from the initial expenditure creates additional activity in the local economy ('ripple effect'. Indirect effects are the results of business-to-business transactions indirectly caused by the direct impacts.
- **Induced impacts (Consumption):** An increase in revenue (from direct and indirect impacts) means that businesses increase wages and salaries by hiring more employees, increasing hours worked and raising wages. Households will then increase spending at local businesses.
- **Value added:** Value-added is the value of sales generated by each industry, minus the cost of its inputs. Estimates are modelled using the NIEIR methodology and presented in constant dollars (adjusted for inflation). It is calculated by subtracting the cost of industry inputs from total sales generated.
- **Output:** Output is the gross sales of an industry, which includes the cost of inputs to that industry. To the extent that outputs from one industry are used as inputs to another, the economic productivity of an industry may be counted multiple times in output, which is why output totals generally appear much higher than value add or GRP.

## 2.4 Disclaimer

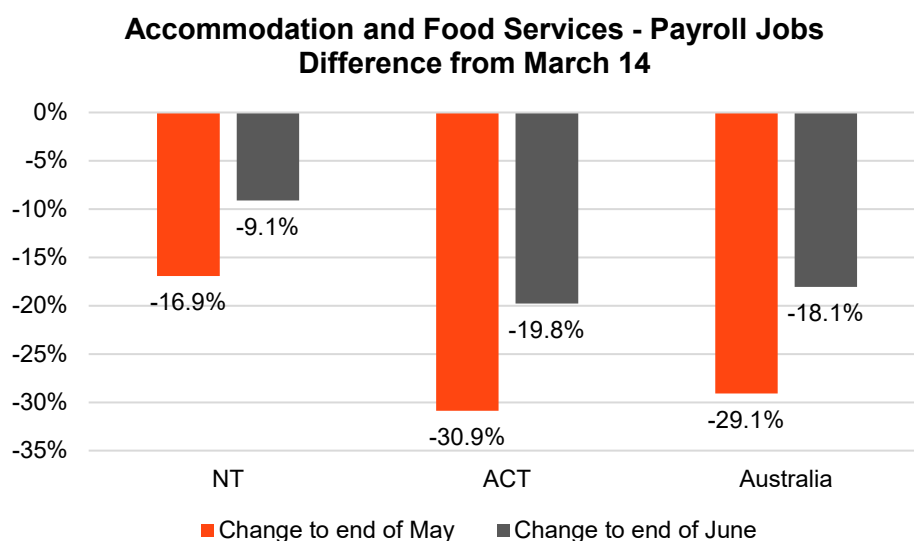
The Report is prepared only for use by the person/entity who commissioned the Report and may only be used for the purpose for which it was commissioned. ID accepts no liability in connection with the recipient's use or reliance on the Report.

In relation to the economic model, as this is only a model of the real world, it is likely that real-world results would differ from what is shown in this report. .id and NIEIR take no responsibility for the use of this information.

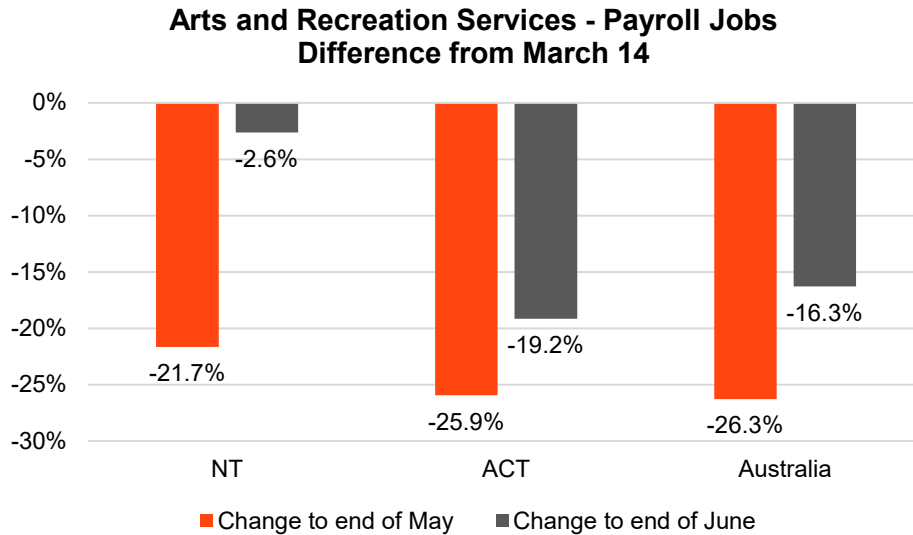
### 3. Economic impact of stimulus actions

The City of Darwin's COVID economic stimulus package may have had a contributing effect on maintaining/restoring confidence in the two industries most impacted by COVID restrictions – Accommodation and Food, and Arts and Recreation Services. By April 18, both these industries' payroll job figures were down 29% in the Northern Territory from that experienced a month earlier (week ending March 14). This was similar to the national change (-33% and -27% respectively) and to a benchmark location of the ACT<sup>1</sup> (-33% and -30%).

However, by the end of May the change in these industries was far less than the national and ACT figures. By the end of June, Arts and Recreation Services payroll employment levels were almost back to March levels (only down by 2.6%). In contrast, national levels for this industry were still down 16.3% and the ACT levels were down 19.2%. The ACT effectively moved to stage 2 eased restrictions two weeks after the NT but at the 25<sup>th</sup> July the Arts and Recreation Services industry was still down 13.4%.



<sup>1</sup> Comparisons to the ACT may be inappropriate but it provides a reasonable benchmark as a location with low resident population, industry structure leaning towards public sector jobs, low covid cases and an early easing of restrictions.



On the following pages, an attempt has been made to quantify the economic impacts of direct activities within the stimulus package.

### 3.1 Commercial and community sector support

The City of Darwin provided support to the commercial and community sectors to support business confidence and help enterprises that would be negatively impacted by COVID restrictions. This included rate relief and deferrals and exemption from fees that would have otherwise occurred. In the case of the community sector, it also involved grants to impacted organisations.

This support may have prevented businesses or community groups collapsing due to reduced income. However, without a business/community group survey to determine this, it is impossible to estimate likely closures. Therefore, the impacts of this financial support have been estimated by assuming the money has been used to maintain employment. It has been modelled like an industry investment, but instead of net jobs created, it can be regarded as net jobs saved.

The commercial sector injection has been calculated as follows:

Summary	Input
Commercial and market rent relief (two quarters)	\$317,816
Rate reductions and deferrals (incorporates full rate hardship reduction figure plus one quarter of reduced interest on rates deferral figure)	\$203,456
Banner, permit and Street Food permit fees	\$60,000
<b>Total Support</b>	<b>\$581,272</b>



This figure has then been input into the economic impact model in a mixture of key impacted industries (e.g. Food and beverage services) to estimate the flow on impacts.

### Impact Summary – Darwin City Council – commercial sector support (\$0.58m) – 2019/20

Summary	Output (\$m)	Value-added (\$m)	Local jobs
Impacts on Darwin economy			
Direct impacts	\$0.58	\$0.28	4.0
Industrial impact	\$0.21	\$0.08	1.0
Consumption impact	\$0.10	\$0.05	0.5
<b>Total impact on Darwin economy</b>	<b>\$0.90</b>	<b>\$0.41</b>	<b>5.5</b>

Source: National Institute of Economic and Industry Research (NIEIR)

The community sector injection has been calculated as follows:

Summary	Input
Community facility rent relief	\$67,247
Recreation oval hire and permits	\$25,000
Community Grants (\$50K 19/20 + \$150K 20/21)	\$200,000
<b>Total Support</b>	<b>\$292,247</b>

This figure has then been input into the economic impact model in a mixture of industries that reflect common non-profit community service areas<sup>2</sup> to estimate the flow on impacts.

<sup>2</sup> The ABS Australian National Accounts: Non-Profit Institutions Satellite Accounts 2012-13 suggests 38% of organisations are related to health and Social Assistance Services, 31% to Education and Training, 24% to Arts and Recreation and other services.

## Impact Summary – Darwin City Council – community sector support (\$0.29m) – 2019/20

Summary	Output (\$m)	Value-added (\$m)	Local jobs
Impacts on Darwin economy			
Direct impacts	\$0.29	\$0.17	1.6
Industrial impact	\$0.08	\$0.04	0.4
Consumption impact	\$0.10	\$0.04	0.5
<b>Total impact on Darwin economy</b>	<b>\$0.47</b>	<b>\$0.25</b>	<b>2.4</b>

Source: National Institute of Economic and Industry Research (NIEIR)

### 3.2 Residential support

The council also provided support to residents as a whole to support community confidence, help people in need, and support expenditure at local businesses. This included rate relief and deferrals (similar to businesses) and exemption from fees that would have otherwise occurred. The impacts of this financial support have been estimated by making the assumption that it is a cash injection into residents' pockets and that residents will spend a portion of this money going forward. A household expenditure-based profile has been used to identify industries that would benefit. The assumptions and figures used to calculate direct injection input are presented in the next table.

Summary	Input
Parking fees which would have otherwise occurred (adjusted by -25% to incorporate fact that not only City of Darwin residents would incur fees in the LGA)	\$1,018,000
Rate reductions and deferrals (incorporates full rate hardship reduction figure plus one quarter of reduced interest on rates deferral figure)	\$67,819
Community centres and library photocopy income	\$31,826
Animal permit fees	\$321,000
Regulatory Services infringements and permit fees (typically animal management and bylaw infringements)	\$51,000
<b>Expenses not incurred</b>	<b>\$1,489,645</b>
Adjustment due to portion saved (-20%) <sup>3</sup>	-\$297,929
<b>Net amount available for expenditure</b>	<b>\$1,191,716</b>

<sup>3</sup> Latest ABS National Accounts suggest Household saving ratio increased to 19.8% from 6.0% in the June Quarter. ABS, 2020 Australian National Accounts: National Income, Expenditure and Product, June 2020

This figure has then been input into the economic impact model in a mixture of industries that reflect household expenditure<sup>4</sup> (e.g. Retail, transport, health) to estimate the flow on impacts.

### Impact Summary – Darwin City Council – residential support (\$1.19m) – 2019/20

Summary	Output (\$m)	Value-added (\$m)	Local jobs
Impacts on Darwin economy			
Direct impacts	\$1.19	\$0.66	7.6
Industrial impact	\$0.33	\$0.14	1.5
Consumption impact	\$0.30	\$0.14	1.5
<b>Total impact on Darwin economy</b>	<b>\$1.82</b>	<b>\$0.94</b>	<b>10.6</b>

Source: National Institute of Economic and Industry Research (NIEIR)

### 3.3 Green Army

The Green Army was a major initiative to give employment opportunities to 100 people to undertake a range of maintenance, greening and city beautification tasks. The total cost of the program was estimated at \$ 1,094,350.

Workers were employed on a casual basis with an estimated 40,000 hours of work completed during the 3-month period. The total impact of the program goes beyond employment and will have generated supply chain and worker consumption impacts. Work cut across multiple ANZSIC based industries, but most likely in:

- Landscape Construction Services
- Gardening Services
- Building and Other Industrial Cleaning Services

The impacts of the Green Army program have been estimated by assuming an injection of \$1.1million into the Darwin economy in a mixture of the 2 digit ANZSIC code industries of Construction Services (incorporates landscape construction) and Building Cleaning, Pest Control and Other Support Services (incorporates gardening and cleaning). The job impacts have been adjusted to reflect the lower wages paid compared to the median wage for Darwin workers in the 2-digit industries. The job figure of 25 reflects the fact that the model estimates an annual impact equivalent (one quarter at 100 jobs).

<sup>4</sup> Based ABS Household Expenditure Survey 2015/16 breakdown for NT.

**Impact Summary – Darwin City Council – Green Army (\$1.1m) – 2019/20**

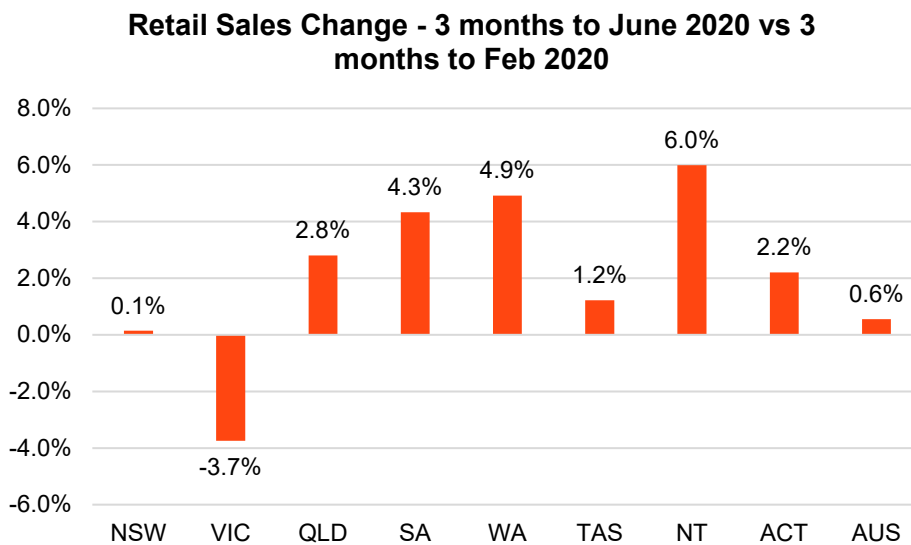
Summary			
	Output (\$m)	Value-added (\$m)	Local jobs
Impacts on Darwin economy			
Direct impacts	\$1.10	\$0.51	25
Industrial impact	\$0.46	\$0.18	2
Consumption impact	\$0.81	\$0.37	4
<b>Total impact on Darwin economy</b>	<b>\$2.37</b>	<b>\$1.06</b>	<b>31</b>

Source: National Institute of Economic and Industry Research (NIEIR)

**3.4 MyDarwin**

The City of Darwin launched an online platform that provided discounts to the community to incentivise spending to support local jobs and businesses. The program provides \$40 in vouchers a day to registered users to support 25% of the cost of a purchase (i.e. user spends \$10 consisting of \$7.50 of their own money and a \$2.50 voucher). The first round of vouchers was so successful that ultimately 5 rounds have been run with \$650,000 allocated and redeemed up to the end of July. The rounds were funded via a combination of council reserves (e.g. parking fees) and Northern territory Government grants.

This program appears to have been quite successful with the NT experiencing an uptick of 6% in retail turnover in the June Quarter compared to the three months to February 2020 (the City of Darwin represents almost 50% of the NT's retail sales trade). This was the largest out of all Australian states. March 2020 has been removed from comparison as every state saw a surge in retail sales due to grocery related stockpiling.



Source: ABS Cat: 8501.0 Retail Trade, Australia

The direct impacts of the myDarwin program would normally be expected to be the program investment multiplied by 4 (the discount is .25% of transaction value), which equates to \$2.6m. However, some people would have purchased goods anyway regardless of the program and others were induced to spend more. The true transaction value was \$3.9m, this has been adjusted for planned expenditure shares in the table below.

Summary	Input
Total transaction spend	\$3,889,000
Share of expenditure that was unplanned	66% <sup>5</sup>
Net amount of induced expenditure	\$2,566,740

This adjusted figure has then been input into the economic impact model in a mixture of industries that reflect the programs main business category split e.g. Retail Trade and Accommodation and Food Services.

### Impact Summary – Darwin City Council - myDarwin (\$2.6m) – 2019/20

Summary	Output (\$m)	Value-added (\$m)	Local jobs
Impacts on Darwin economy			
Direct impacts	\$2.57	\$1.44	20.9
Industrial impact	\$0.82	\$0.31	4.0
Consumption impact	\$0.54	\$0.25	2.7
<b>Total impact on Darwin economy</b>	<b>\$3.93</b>	<b>\$2.01</b>	<b>27.6</b>

Source: National Institute of Economic and Industry Research (NIEIR)

<sup>5</sup> MyDarwin project report survey suggests 34% of expenditure was planned and would have happened regardless of program

### 3.5 Increased security patrols

Council allocated \$72,000 a month towards increased security patrols in the city to improve customer and business safety to enable more retail activities. The total for the seven month period to 31 October will be \$504,000. The impacts of this expenditure have been estimated by assuming an injection of \$0.5 million into the Darwin economy) in Public Order, Safety and Regulatory Services.

#### Impact Summary – Darwin City Council – Increased security patrols (\$0.5m) – 2019/20

Summary	Output (\$m)	Value-added (\$m)	Local jobs
Impacts on Darwin economy			
Direct impacts	\$0.50	\$0.36	1.4
Industrial impact	\$0.12	\$0.06	0.5
Consumption impact	\$0.14	\$0.06	0.7
<b>Total impact on Darwin economy</b>	<b>\$0.75</b>	<b>\$0.48</b>	<b>2.6</b>

Source: National Institute of Economic and Industry Research (NIEIR)

### 3.6 Emergency response car hire to achieve social distancing

Council had to hire additional vehicles to carry out its normal activities due to the need to conform to social distancing requirements. The total cost for the quarter for additional vehicle hires was \$407,000. The impacts of this expenditure have been estimated by assuming an injection of \$0.407 million into the Darwin economy) in Rental and Hiring Services (non-property).

#### Impact Summary – Darwin City Council – Emergency car rental (\$0.41m) – 2019/20

Summary	Output (\$m)	Value-added (\$m)	Local jobs
Impacts on Darwin economy			
Direct impacts	0.41	0.03	1.67
Industrial impact	0.19	0.07	0.54
Consumption impact	0.17	0.08	0.85
<b>Total impact on Darwin economy</b>	<b>0.77</b>	<b>0.18</b>	<b>3.07</b>

Source: National Institute of Economic and Industry Research (NIEIR)

### 3.7 \$25.0M commitment to the Casuarina Pool

#### Redevelopment Project

In April 2020, Council made a commitment ahead of developing the 2020/21 budget to accelerate the \$25M Casuarina Pool Redevelopment Project to contribute to business and construction sector confidence. The project involves the redevelopment an existing 40-year-old pool at Casuarina into a “resort style lagoon” with a lap swimming pool, learn to swim pools, fitness equipment, space for a cafe and allied health services as part of the vision. The impacts of this expenditure have been estimated by assuming an injection of \$25 million into the Darwin economy in Construction.

#### Impact Summary – Darwin City Council – Casuarina pool development construction phase (\$25m) – 2019/20

Summary	Output (\$m)	Value-added (\$m)	Local jobs
Impacts on Darwin economy			
Direct impacts	\$25.00	\$7.32	63.7
Industrial impact	\$16.03	\$5.85	63.1
Consumption impact	\$13.34	\$6.13	66.6
<b>Total impact on Darwin economy</b>	<b>\$54.37</b>	<b>\$19.30</b>	<b>193.4</b>

Source: National Institute of Economic and Industry

On completion, it is likely the facility will employ 50 people on an ongoing basis based on benchmark locations. This will have flow on supply chain and consumption impacts.

#### Impact Summary – Darwin City Council – Casuarina pool development operational phase (50 jobs input) – 2019/20

Summary	Output (\$m)	Value-added (\$m)	Local jobs
Impacts on Darwin economy			
Direct impacts	\$11.96	\$4.14	50.0
Industrial impact	\$4.56	\$1.97	20.1
Consumption impact	\$2.89	\$1.33	14.5
<b>Total impact on Darwin economy</b>	<b>\$19.42</b>	<b>\$7.43</b>	<b>84.6</b>

Source: National Institute of Economic and Industry

### 3.8 Total economic impacts

The combination of all direct and ripple effects results generated \$4.4 million in gross value added to the local economy in 2020 and supported the annual equivalent of 70 local jobs. This value represents 0.06% of Darwin City's annual total industry value added.

#### Impact Summary – Darwin City Council – Combined impacts – 2020

Total economic impacts	Output (\$m)	Value-added (\$m)	Local jobs
Direct impact	\$5.47	\$2.80	52.7
Industrial impact	\$1.83	\$0.74	7.9
Consumption impact	\$1.92	\$0.88	9.6
<b>Total impact on Darwin economy</b>	<b>\$9.22</b>	<b>\$4.42</b>	<b>70.2</b>

Source: National Institute of Economic and Industry Research (NIEIR)

Considering the stimulus funding was for two quarters not a whole year, the actual jobs supported in each quarter will be higher.

- In the June quarter it is estimated the stimulus supported 201 jobs (of which 123 are directly and indirectly related to the Green Army program)
- In the September quarter it is estimated the stimulus supported 79 jobs.

The \$25m investment in Casuarina Pool is also set to create 193 jobs during the construction phase and likely to support approximately 85 ongoing direct and indirect jobs post development. The table below shows the combined estimates of 2020 jobs created and estimated future jobs.

#### Impact Summary – Darwin City Council – Combined impacts – 2020 and future

Total economic impacts	Output (\$m)	Value-added (\$m)	Local jobs
Direct (2020)	\$5.47	\$2.80	52.7
Direct (Casuarina Pool Construction Phase)	\$25.00	\$7.32	63.7
Direct (Casuarina Pool Ongoing Phase)	\$11.96	\$4.14	50.0
Industrial (2020)	\$1.83	\$0.74	7.9
Industrial (Casuarina Pool Construction Phase)	\$16.03	\$5.85	63.1
Industrial (Casuarina Pool Ongoing Phase)	\$4.56	\$1.97	20.1



Economic Impact of COVID Stimulus Package

Consumption (2020)	\$1.92	\$0.88	9.6
Consumption (Casuarina Pool Construction Phase)	\$13.34	\$6.13	66.6
Consumption (Casuarina Pool Ongoing Phase)	\$2.89	\$1.33	14.5
<b>Total Impacts (2020)</b>	<b>\$9.22</b>	<b>\$4.42</b>	<b>70.2</b>
<b>Total Impacts (Casuarina Pool Construction Phase)</b>	<b>\$54.37</b>	<b>\$19.30</b>	<b>193.4</b>
<b>Total Impacts (Casuarina Pool Ongoing Phase)</b>	<b>\$19.42</b>	<b>\$7.43</b>	<b>84.6</b>
<b>Total Impacts on Darwin economy</b>	<b>\$83.00</b>	<b>\$31.15</b>	<b>348.1</b>

Source: National Institute of Economic and Industry Research (NIEIR)

## 4. Wider benefits

The COVID stimulus projects also have the potential to generate positive social and environmental benefits that may be difficult to fully quantify in a straightforward economic impact tool. Some of these benefits include:

### 4.1 Social Benefits

- The Green Army program provided short term work opportunities to 100 recently unemployed residents. Other actions may have helped ensure less people were laid off during the period of heavy restrictions. Beyond providing obvious income and wealth benefits, paid employment has been shown to:
  - Improve health and well-being (research suggests lower illness rates and mental health issues),
  - Improve health and wellbeing of families (lower likelihood of illness; enhanced well-being; psychological distress is less likely in children whose parents are employed and face less economic pressure),
  - Increase social cohesion (employment increases social contact and the diversity of people connected),
  - Improve life satisfaction and sense of identity, and
  - Improve ability to access more employment and at higher levels (on the job training and more recent work makes people more employable).<sup>6</sup>

### 4.2 Environmental benefits

- The Green Army program saw an estimated 3,500 trees planted in the LGA. A study in Adelaide suggested four-year-old trees generate around \$424/tree in gross annual benefit. These benefits include improving:
  - Air quality,
  - Energy consumption by reducing air temperatures,
  - Storm water control and reduced erosion,
  - Health and wellbeing (trees reduce UV exposure and have been shown to encourage active transport, improving physical health),
  - Commercial vitality of retail areas,

---

<sup>6</sup> Ministry for Primary Industries, NZ Government, 2014, *The social value of a job*

- Housing values, and
- Safety when used as traffic calming devices.<sup>7</sup>

---

<sup>7</sup> National Heart Foundation of Australia, Ely M., 2012 *Making the case for investment in street trees and landscaping in urban environments*; Stringer R, 2007, *The benefits of Adelaide's street trees revisited*. TREENET Proceedings of the 8th National Street Tree Symposium:6th and 7th September 2007; Adelaide, SA.