

Newcastle Urban
Transformation and Transport
Program Benefits Realisation
Summary Report
Hunter and Central Coast
Development Corporation

20 August 2021

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Summary Report

This Report is a summary of the results from a Benefit Realisation activity undertaken for the Newcastle Urban Transformation and Transport Program (NUTTP). This activity included measuring benefits realisation to date, including development activity associated with the Program, post-opening.

The NUTTP (branded as 'Revitalising Newcastle') is a multi-agency government initiative set up to deliver on the NSW Government's Revitalising Newcastle Strategy 2013. It is coordinated by the Hunter and Central Coast Development Corporation (HCCDC) in partnership with Transport for NSW (TfNSW).

The Benefits Realisation activity considered three key projects delivered by the Program, each with the following status:

- ▶ Heavy Rail Project: materially complete, with operations at the Newcastle Interchange having commenced in October 2017
- ▶ Urban Transformation Project: well progressed, with all of the nine key sites divested by late 2020
- ▶ Light Rail Project: commenced revenue service in late February 2019

The Benefits Realisation activity compared the planned benefits measures (or Key Performance Indicators, KPIs), developed for the NUTTP Final Business Case (FBC) and approved in 2016, to estimated Actual performance in 2020.

A number of the benefits identified in the FBC are long term, with targets for many measures extending out to 2036. To the extent that the outcomes of NUTTP are achieved, consistent with these measures, the benefits identified in the FBC are expected to continue to flow to the community over this period.

Undertaking this Benefits Realisation activity post-completion allows HCCDC to track actual performance on benefits measures, compared to planned performance, helping to inform the development of future programs.

The analysis presented in this Report was undertaken in late 2020, based on workshops with, and inputs provided by, the NUTTP Program team.

The analysis in this Report is an interim capture of the benefits realisation status of the Program, with a subsequent capture anticipated to occur following the next ABS Census (undertaken in August 2021).

The analysis is a point-in-time comparison of estimated actual performance, compared to planned, for benefits realisation measures established in the NUTTP Benefits Realisation Plan (BRP). Results for the period analysed may be impacted by:

- ▶ COVID-19 related changes to public transport and property development activity
- ▶ The analysis being undertaken within the first 18 months of light rail services being in operation, while services and patronage are not yet steady-state
- ▶ A small amount of public domain and streetscaping still being finalised

Program objectives

The NUTTP FBC is the source of program objectives and outcomes used for benefits realisation, as reflected in the NUTTP BRP.

The Program's key objectives are:

1	Bring people back to the city centre
2	Connect the city to the waterfront
3	Help grow new jobs in the city centre
4	Create great places linked to new transport
5	Create economically sustainable public domain and community assets
6	Preserve and enhance heritage and culture

Approach to benefits realisation measurement

Many of the Program's benefits deliver on multiple objectives, and a one-to-one mapping of objectives to benefits is not practical. As such, for benefits realisation, benefits measures are grouped by outcome areas. This Report summarises performance against the Program objectives, using seven outcome areas, as shown in the following table.

Outcome area	Objectives supported					
	1	2	3	4	5	6
1. Bring people back to the city	✓		✓			
2. Land use realisation	✓	✓	✓	✓	✓	✓
3. Public Transport	✓	✓	✓	✓		
4. Roads	✓	✓	✓	✓		
5. Walking, cycling and urban amenity	✓	✓	✓	✓	✓	✓
6. Urban separation		✓		✓	✓	
7. Costs and schedule	✓	✓	✓	✓	✓	✓

For each outcome area, specific measures/Key Performance Indicators (KPIs) are used to assess progress towards the outcomes envisioned by the Program objectives. These measures/KPIs are defined in the Program BRP, and reflect expected outcomes as at the 2016 FBC. The measures are not necessarily outcomes in themselves. For example, growth in land values may not be the desired outcome of the Program, but it is an indicator of Newcastle being a more attractive place for people to live and work.

As a Benefits Realisation activity, the analysis in this Report is not an update of the FBC economic cost benefit analysis, but rather an assessment of the degree to which the benefit measures/KPIs identified in the BRP have been achieved.

Results for each measure/KPI are detailed in the benefits realisation status table on Page 7, with the following values being reported.

- ▶ Baseline, being the starting figure at the commencement of the Project, typically the latest data available in 2016 for the NUTTP FBC (or in some cases 2011, or 2014)
- ▶ Actuals, being current performance on the measure, or projections, where current performance were not available
- ▶ Planned, being expected progress year by year
- ▶ Target, being end-state performance, which is not deemed to be complete for operational measures (such as Patronage) until the end of the benefits measurement period for each measure

- ▶ Actual (% of Planned) or (% of Target) for the current period. Calculated as Actual divided by the Planned (or Target) value, and expressed as a percentage.

The status of each measure/KPI was then summarised using the following 'BRAG' traffic light ratings, as set out in the NSW Department of Finance (2018) Benefits Realisation Management Framework.

- Target (end-state) achieved or exceeded
- exceeded Planned* or within acceptable deviation (+/- 25%)
- wider undesirable deviation (+/- greater than 25% to +/- 50%) from Planned*
- outside acceptable deviation levels* (+/- greater than 50%) from Planned

* or Target if at end year for that measure, and Target value not achieved or exceeded.

Ratings were applied to the calculated Actual (% of Planned) or (% of Target) for measures which have reached an end-state. For some measures (e.g. Delivery Costs), this approach means that an undesirable deviation will be reported as greater than Planned/Target.

Key highlights, based on the results in the benefits realisation status table on Page 8, are summarised for each outcome area under the following headings.

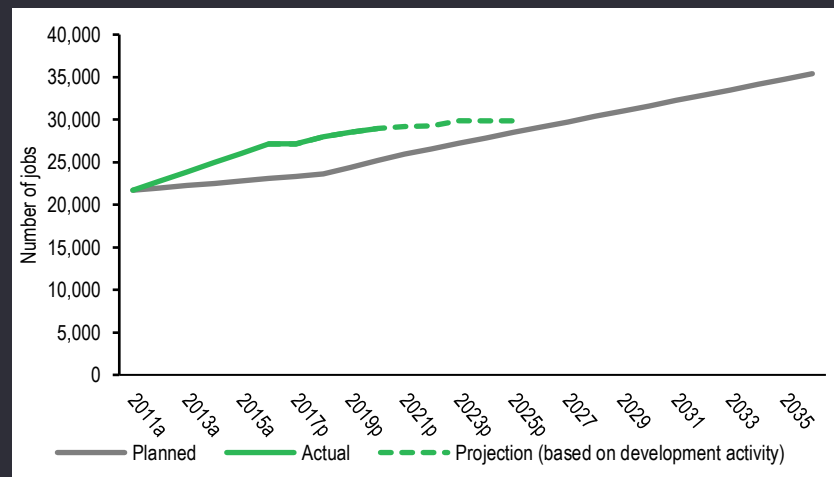
Outcome 1: More people are living and working in the city centre

Objective: 'Bring people back into the City', 'Help grow new jobs in the city centre'

Population and jobs growth for the city centre has increased and is generally in line with the growth expected in the Program Business Case, reflecting investments by government and renewed development activity in the city centre. Based on 2016 ABS Census data and more recent development activity there has been an estimated:

- ▶ + 7,246 new jobs (more than double that Planned for 2020)
- ▶ + 3,490 new education trips per day, with more to come when the Honeysuckle City Campus development progressively commences operations from mid-2021
- ▶ + 3,244 new residents (16% less than Planned for 2020)

Projected employment growth is above Planned values



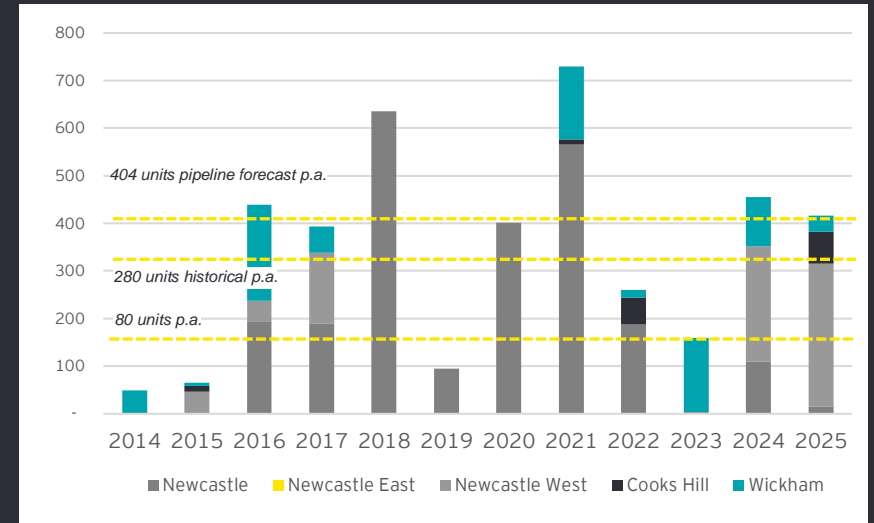
Source: Analysis of ABS Census 2016, and Cordell's Development Approvals

Outcome 2: Increased investment activity in the city centre

Objective: All

- ▶ Analysis of DA's indicates that as many as 2,078 dwellings, 46,946 sqm of commercial space (Gross Floor Area, GFA) and an additional 14,000 sqm of education GFA delivered between 2014 and 2020.
- ▶ Over the 5 years from 2014, average growth across all property classes has been 10.3% per year in the Study Area, compared to 7.2% per year for the Newcastle LGA. As such, a strong investment environment was maintained during the Program, supported by a number of NSW Government investments in the City.
- ▶ Delivery of new residential and commercial developments supports a growing number of people and jobs in the City, with residential development activity averaging 280 dwellings p.a. between 2016 and 2020, compared to 80 p.a. in the five years preceding the Program.

Increased residential development activity (number of dwellings delivered)



Source: Analysis of data from Cordell, PPM Consulting

Note [1]: projected annual DU uptake rate based on business case assumptions to 2036

Note [2]: projected annual DU uptake rate based on Newcastle Urban Renewal Strategy ('NURS') assumptions (Additional 6,000 DUs) to 2036 (Source: Newcastle Urban Renewal and Transport Program, Stage 2 Business Case - Urban Renewal and Light Rail, November 2014)

Outcome 3: Light rail services are more frequent than planned, with improved connections to the rest of the network

Objective: 'Bring people back to the city centre'; 'Connect the city to the waterfront'; 'Help grow new jobs in the city centre'; 'Create great places linked to new transport'

- ▶ Initial light rail ridership is high, with 3,413 daily trips during the first year of operations (40% more than planned).
- ▶ Although travel times are slightly longer than planned at 15 minutes rather than 14 minutes, however services are operating more frequently, every 7.5 minutes, rather than 10 minutes, in peak
- ▶ Compared to the Program Business Case, light rail is better connected to the rest of the public transport network, as customers also benefit from delivery of a new bus interchange, a reconfigured bus network to take advantage of light rail, as well as integrated Opal fares and ticketing.

Light rail services commenced on 18 February 2019



Source: HCCDC

Outcome 4: Roads are mostly in-line, or better than planned performance

Objective: 'Bring people back to the city centre'; 'Connect the city to its waterfront'; 'Help grow new jobs in the city centre'; 'Create great places linked to new transport'

- ▶ Travel speeds were assessed on a key section of Hannell Street between Hunter Street and Cowper Street, and were found to largely be the same or better in 2020¹ than they were in 2017, prior to the opening of light rail.
- ▶ The level of service for traffic at five key intersections was found to be better than Planned in February 2020, with a rating of A, B or C, at all five intersections, except for Stewart Avenue / King Street, which had a rating of D in the AM peak and E in the PM peak periods.
- ▶ Performance of the intersections at Hannell Street / Honeysuckle Drive, Hunter Street / Union Street, Hunter Street / Darby Street, and King Street / Darby Street are all better than Planned.
- ▶ The rail crossing at Stewart Avenue has increased green time for traffic, with Actual green time being 83% of the time when assessed, compared to the Baseline of 73% in 2014, prior to the Heavy Rail closure. The Actual green time is, however, slightly lower than the Target of 88%.

¹ Assessed prior to March 2020, and the effects of COVID-19 on general traffic patterns in Newcastle

Outcome 5: Increased investment in community and heritage outcomes

Objective: All

- ▶ The Newcastle Station temporary activation has been open to the community since 2018, and the Signal Box has been repurposed as a larger, and more attractive site for a wider range of visitors than anticipated in the Business Case.
- ▶ Civic Station has been repurposed as a Tourist Information Centre, connecting the Newcastle Museum and Civic Link public domain, and incorporating key heritage elements.
- ▶ Public art installations at Worth Place, Wind Wall on Stewart Ave, WW2 memorial, and additional heritage restoration works.
- ▶ Bus Depot and Newcastle Station finishing works have now been completed, with additional public domain being opened up, further connecting the city to the harbour.

Public Domain and Heritage: Civic Link



Source: HCCDC

Outcome 6: Improved access for walking and cycling reduces urban separation

Objective: 'Connect the city to its waterfront'; 'Create great places linked to new transport'; 'Create economically sustainable public domain and community assets'

- ▶ During construction, five temporary crossings of the rail corridor were anticipated in the FBC. This was increased to seven temporary crossings in order to improve the ease of movement between the city and the waterfront.
- ▶ After the opening of light rail, the estimated number of walking and cycling trips across the former heavy rail corridor is substantially above plan, with almost two and half times as many trips than Planned.
- ▶ The crossings provided by the Program are generally more direct, as overpasses are not required, and are built to modern standards (e.g. lighting and accessibility standards), providing a substantial improvement in connectivity and quality.
- ▶ The removal of the formerly fenced-off heavy rail corridor also creates a much more permeable environment for pedestrians and cyclists along the corridor.

Outcome 7: Scope and costs have changed, but this has largely been to deliver more, and to improve urban renewal and transport outcomes

Objective: All

- ▶ Wire-free operations and streetscaping along 1.7km of Hunter Street (Worth Place to Pacific Park) to improve city centre amenity.
- ▶ Doubling of the amount of public domain to be delivered for Market Street Community Lawn and Newcastle Station.
- ▶ Network upgrades to key roads and intersections to support future growth in the City.
- ▶ A greater focus on delivering commercial and education land use in the city centre, with an additional 50,746 sqm university campus to be delivered in Honeysuckle.
- ▶ More affordable housing, with 30 new community housing and 394 student dwellings.
- ▶ Further investment in preserving heritage.

More Public Domain: Market Street Community Lawn



Source: HCCDC

Benefits realisation status: actuals compared to planned values for 2020

Outcomes (aligned to Objectives)	Indicator	Measure [Source]	Planned (2020)*	Target (year varies) *	Actual (2020)*	Actual (% of Planned)	Actual (% of Target)	Status	
Objective 1 Bringing people back to the city centre	People 1 3	Residents	Population [1,3]	+ 3,865	+ 10,400	+ 3,244	84%	31%	●
		Employees	Jobs [1,3]	+ 3,480	+ 13,700	+ 7,246	208%	53%	●
		Students	Daily trips [1,3]	+ 1,780	+ 3,141	+ 3,490	196%	111%	●
Objective 2 Connect the city to the waterfront	Land use 1 2 3 4 5 6	Residential	Dwellings released [2]	+ 746	+ 746	+ 776	104%	104%	●
			Dwellings approved [3]	+ 2,312	+ 5,770	+ 2,078	90%	36%	●
			Value (per sqm) [3]	\$635	-	\$965	152%	152%	●
		Commercial	Area released (sqm) [2]	+ 29,700	+ 29,700	+ 32,405	109%	109%	●
			Area approved (sqm) [3]	+ 34,000	+ 170,000	+ 46,946	138%	28%	●
			Value (per sqm) [3]	\$691	-	\$1,152	167%	167%	●
Education	Area released (sqm) [2]	-	-	+ 50,746	> Planned	> Planned	●		
	Area approved (sqm) [3]	-	-	+ 14,000	> Planned	> Planned	●		
Objective 3 Help grow new jobs in the city centre	Public transport 1 2 3 4	Travel Time	Minutes [4]	14	14	15	107%	107%	●
		Service Frequency	Peak, minutes between trips [4]	10	10	7.5	75%	75%	●
		Daily Patronage	Daily trips [4]	2,439	2,835	3,413	140%	120%	●
		Customer Satisfaction	Rating [4]	>85%	>85%	97%	114%	114%	●
Objective 4 Create great places linked to new transport	Roads 1 2 3 4	Traffic Flow	Average speed (km/h) [4]	21 - 36	21 - 36	22 - 35	97%	97%	●
		Levels of Service	Traffic rating [4]	B or C **	B or C **	A, B, C **	> Planned	> Planned	●
		Stewart Ave Level Crossing	Traffic green time (%) [4]	88%	88%	83%	98%	94%	●
Objective 5 Create economically sustainable public domain and community	Walking, Cycling & Urban Amenity 1 2 3 4 5 6	Public Open Space	Area developed (sqm) [2]	+ 11,150	+ 18,476	+ 29,307	263%	159%	●
		Streetscaping	Area developed (sqm) [2]	-	n/a	+ 45,000	> Planned	-	●
		Walking & Cycling	Increase in daily trips [1,3]	+ 260	+ 797	+ 645	248%	81%	●
Objective 6 Preserve and enhance heritage and culture	Urban separation 2 4 5	Walk & Cycling across corridor	Daily trips [1,3]	+ 15.9	+ 34.6	+ 71.2	448%	206%	●
		Costs and schedule 1 2 3 4 5 6	Delivery costs	\$ million (net of revenue) [2,4]	\$533.40m	\$533.40m	\$665.96m	125%	125%
Operating costs***	\$ million [4]		\$77.91m	\$77.91m	\$53.46m	69%	69%	●	
Light rail opening****	Opening date [4]		Q1 2019	Q1 2019	Q1 2019	-	-	●	

Key: ● Target achieved or exceeded ● exceeded Planned (and/or Target for ongoing operational measures) or within acceptable deviation (+/- 25%) ● wider undesirable deviation (+/- greater than 25% to +/- 50%) from Planned/Target ● outside acceptable deviation levels (+/- greater than 50%). Undesirable deviation can be positive for some measures (e.g. Delivery Costs).

* '+' indicates an incremental value over the Baseline (typically 2014 or 2016 values used in the BRP); ** Except King Street / Stewart Avenue (LoSE or higher) and King Street / Union Street (LoSD or higher); *** Planned value includes estimated costs for Newcastle bus and ferry services, based on publicly available historic annual reports, for comparison with Actuals, which are the estimated average annual operating cost from the announced value of the multimodal Newcastle Integrated Services Contract; **** Contracted commencement date following completion of 2016 legal challenge, which delayed construction. Sources: [1] Analysis of ABS 2016 [2] HCCDC 2020 [3] Analysis of data from Cordells 2020, NSW Valuer General 2020 [4] TfNSW 2020.

Hunter and Central Coast Development Corporation

Methodology, assumptions, and inputs

Scope of this Report

This Report is a point-in-time update of benefits realisation performance, compared to measures set out in the 2019 Program BRP. The analysis presented in this Report is an update to analysis undertaken in EY's 2019 Preliminary Benefits Realisation Report for HCCDC, which was undertaken in early 2019, with the following Program status.

- ▶ Heavy Rail Project: with operations at the Newcastle Interchange commenced in October 2017, and materially complete.
- ▶ Urban Transformation Project: well progressed, with four of the nine key sites divested or underway.
- ▶ Light Rail Project: commenced revenue service in late February 2019.

The 2019 analysis was undertaken prior to light rail services entering a steady state of operations, and focused on only those benefits measures that could be reliably assessed based on the information available. These include:

- ▶ Program cost and completion status relative to the investment case set out in the 2014 and 2016 business cases
- ▶ Demographic, land use and property outcomes, and
- ▶ Qualitative assessment of scope variations on anticipated benefits

This Report builds on the 2019 analysis, to include updated measures for key criteria, and reports on additional measures, not available in 2019. These include:

- ▶ Light rail KPIs, post-opening
- ▶ Operating costs
- ▶ Road performance

Inputs

The analysis presented in this Report was undertaken in late 2020, based on meetings with, and inputs provided by, the NUTTP Program team. The analysis is based on the following inputs.

- ▶ Cost estimates: nominal estimates of program costs and revenues, as at December 2020, were provided by the HCCDC and Transport for NSW
- ▶ Demographics: population and job estimates were sourced from small area estimates developed by the Australian Bureau of Statistics (ABS), Student enrolments and walk / cycle trips were estimated using outputs from Transport for NSW's Household Travel Survey.
- ▶ Land use: program land releases (historical and projected) were provided by the HCCDC as at December 2020. Land valuation data at the parcel level was exported from the NSW Valuer General online database. Development Applications (DAs) were sourced from Cordells database via CoreLogic for the period from 2018 to 2020, and for 2010 to 2018 from PPM Consulting, Revitalising Newcastle Economic Study dated April 2018.
- ▶ 2014 and 2016 business cases: program objectives, benefits and Baseline measures were sourced from the business case documents and supporting appendices from the following business cases: Newcastle Urban Renewal and Transport Program - Stage 1 Final Business Case (Transport for NSW 2014), Newcastle Urban Renewal and Transport Program - Stage 2 Final Business Case (Transport for NSW 2014), Newcastle Urban Transformation Final Business Case (Urban Growth NSW 2016).
- ▶ Roads and light rail operational data: supplied by Transport for NSW.

- ▶ University Enrolments: supplied by University of Newcastle.
- ▶ Interviews / workshops: undertaken with representatives from HCCDC, TFNSW, University of Newcastle and the Hunter Business Chamber during 2019 and 2020.

Assumptions and limitations

EY was tasked with undertaking a benefit capture analysis. Although the analysis follows best practice and official guidelines, and makes use of best evidence, it is subject to a number of simplifying assumptions. They include:

- ▶ Inputs by others: no analysis was undertaken by EY to verify or critique any of the inputs into the analysis (i.e. costs and population) other than sense-checking the relative magnitudes in the analysis.
- ▶ Point-in-time estimate: inputs provided to EY were used to undertake a benefits realisation exercise within the first 18 months of light rail services. As such, some data to directly measure key outcomes was not available, or these measures were estimated based on high-level projections.
- ▶ Correlation is not causation: the measures adopted for the BRP are used to form a view as to how the Project is tracking in achieving objectives and benefits. Measure values, relative to Planned, are only a relative indication as to whether outcomes (and conditions) are consistent with those envisaged when committing to the Project. No attempt has been made to establish a causal link between measures and the Project, or quantitatively control for the impact of other initiatives or events.

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