Northland Transportation Alliance benefits assessment

Meeting: **Council Briefing**
Date of meeting: **03 June 2020**
Reporting officer: **Calvin Thomas, NTA Manager**

Purpose/Ngā whāinga

To provide Elected Members with a summary of benefits identified and assessed as being achieved to date through the formation and operation of the Northland Transportation Alliance (NTA), noting that Northland Regional Council were not included within the original Business Case and are therefore excluded from this assessment.

Context/Horopaki

The primary deliverable benefits identified within the "Northland Transport Collaboration Opportunities" Business case of 2016 were:

- More engaged and capable work force delivering superior asset management
- Improved transport/customer outcomes, enabling investment and social opportunities
- Improved Regional strategy, planning and procurement
- Transport infrastructure is more affordable.

Aligning with the intent outlined within the Business Case, the assessed monetary benefits have resulted in the ability to improve and maximize the value of spend on the respective transport networks and do not equate to savings or reduction of overall transport budgets.

For the purposes of the benefits assessment exercise, and aligning with the original business case:

- Benefit analysis relates to the activities of the three district councils only
- The annual operating costs of the Shared Services Business Unit (SSBU) have been accounted for as an additional cost, negatively impacting on benefit achievement. (Note – does not include any additional "support services costs" provided by existing departments of individual Councils)
- Values of Savings and Costs quoted are "Total Costs" being the combination of Council Local Share and NZTA subsidy.

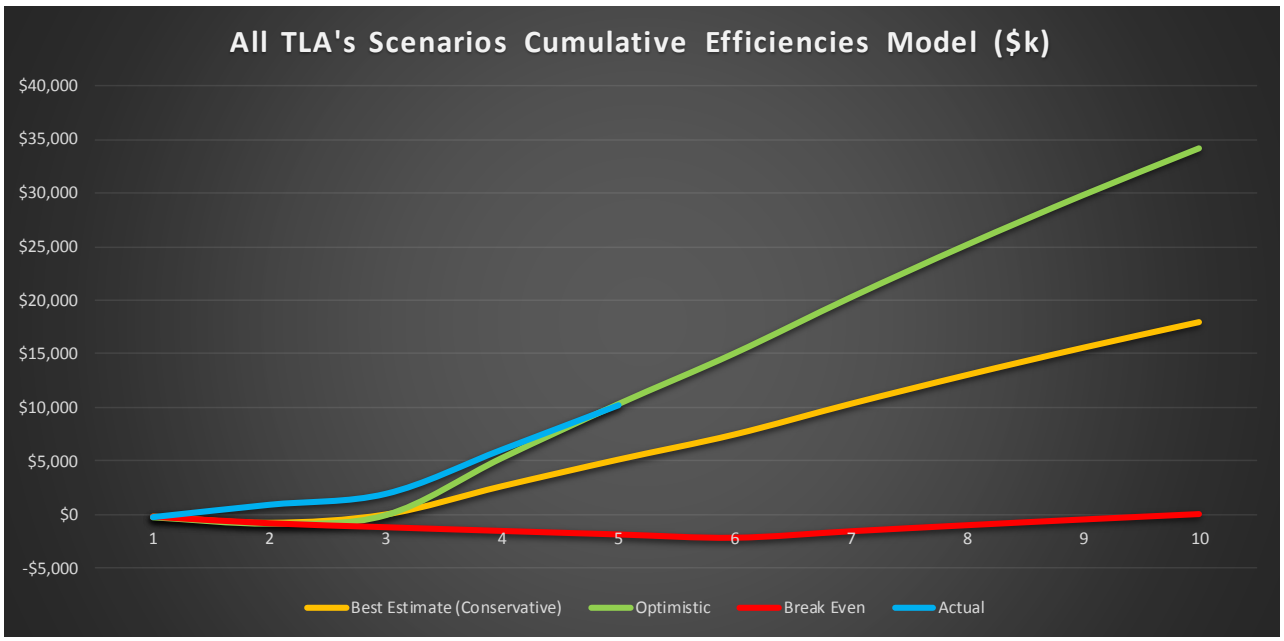
Discussion/Ngā kōrerorero

Summary

The completed assessment of benefits confirms the formation of the NTA has produced significant tangible and non-tangible Regional benefits to date, with an estimated circa $10M in cumulative savings being reinvested in Transportation activities across the three Northland districts in the four-year period from 1st July 2016 to 30th June 2020.

When compared with the 2019/20 projections contained within the Business Case, the calculated achieved benefits are approximately:

- Double the "All TLA's Best Estimate (conservative)".
- Equal to the "All TLA's Optimistic Case".



Analysis of these savings are further broken down within this paper to demonstrate the respective benefit achievement of standalone initiatives and the renewed Maintenance Contracts. The total summary by council is provided in Table 1.

Cummulative Benefit Summary	FNDC	KDC	WDC	Total
Non Maintenance Contract activities	-$575,035	$732,704	-$3,672,940	-$3,515,271
Maintenance Contract activities	$3,328,978	-$5,274,522	-$4,701,964	-$6,647,508
Total	**$2,753,943**	**-$4,541,818**	**-$8,374,904**	**-$10,162,779**

Table 1: Summarised cumulative benefits (1st July 2016 to 30th June 2020)

The assessment also confirms the realisation of several “non-tangible” benefits which are referenced within this paper.

The analysis has determined that the formation of the NTA has resulted in the achievement of significant and quantifiable monetary benefit at a regional level, noting that at present this is primarily driven by:

1. Savings associated with the ownership transfer to NZTA of Mangakahia Road
2. Changes in the calculated Maintenance Contract costs calculated at $/km
3. Annual operational costs introduced with the establishment of the SSBU
4. Developing area of savings through supplier & consultant discounting for regional project engagement (5-10% regional discounts being realised on common activities (e.g. footpath condition surveys, high speed data surveys, software licensing etc.) when awarded as a single contract across the Region.

As each of the first three items above are significant in value, the impact of a negative outcome in any of these for an individual Council is significant, and is summarised as follows:

- FNDC
  - Strong benefit realisation from combination of SSBU formation costs and non-Maintenance contract activity savings *negatively offset* by Maintenance contract cost increase *resulting in overall cumulative cost increase*.
  - Maintenance cost increase is primarily the result of the need to introduce a clearly defined, regionally consistent, higher level of Service Delivery expectations through the new inspection led, performance-based contract model, with clarified work specifications and certainty in increased levels of service.
- KDC
  - Negative benefit realisation from combination of SSBU formation costs and non-Maintenance contract activities *positively offset* by significant Maintenance contract savings *resulting in overall cumulative benefit realisation*.
- WDC
  - *Significant financial benefit realisation across all areas*.

Now the NTA is fully established and historic vacancies have been filled it is planned for further Regional initiatives to be initiated, the majority of which are expected to return on-going year-on-year benefits for all three Northland District Councils.

DETAILED ANALYSIS OF BENEFIT OPPORTUNITY AREAS

A. MORE ENGAGED AND CAPABLE WORK FORCE DELIVERING SUPERIOR ASSET MANAGEMENT

A.1. Development of engaged and capable work force

In early 2019 the NTA began the transition away from traditional roading department structures to a new functional based structure supporting the delivery of consistent transportation services to Northland. The structure is designed to support development opportunities for existing staff and ensures specialist technical skills are utilised across the entire Northland region.

Time sheet analysis (Table 2) of the first six months of the 2019/20 year show an average of 10% of total NTA staff time staff time is now being spent working on non-home council activities, with KDC and FNDC primarily benefiting through the utilisation of key WDC employed staff.

Total allocations - including Tier 2 Time				
District Councils - Inter Council Changing (6 Months - July 19 - Dec 19	**FNDC**	**KDC**	**WDC**	**Total**
Total Home Council Productive Hours	12,324.55	9,465.80	15,241.55	**37,031.90**
less Total Hours Credit (resource hours "sold" to other Councils)	- 531.50	- 1,100.44	- 2,161.65	**- 3,793.59**
Percentage of productive hours "sold" to other Councils	4.3%	11.6%	14.2%	
plus Total Hours Charged (utilising other Council's Resource)	1,510.14	1,416.45	867.00	**3,793.59**
Total Hours booked to Jobs	**13,303.19**	**9,781.81**	**13,946.90**	**37,031.90**
Percentage of Total job hours completed by other Council Staff	**11.4%**	**14.5%**	**6.2%**	**10.2%**

Table 2: Cross council TOTAL resource allocation summary (1st July 2019 to 31st December 2019)

Further analysis has been completed on the staff time allocation information for period of 1st July 2019 to 31st December 2019 to better understand the spread of operational resource time, i.e. with Tier 2 operational management time removed (Table 3).

This exercise has been completed to enable the provision of a true reflection of effort by operational staff and removes the "cross council charging anomaly" that results from the Capital Works and Procurement Manager (Greg Monteith) being employed by WDC but assigned as the key relationship manager for KDC. (Note – this Tier 2 role was originally intended to have KDC as the employing council)

Total allocations - excluding Tier 2 Time				
District Councils - Inter Council Changing (6 Months - July 19 - Dec 19	**FNDC**	**KDC**	**WDC**	**Total**
Total Home Council Productive Hours	11,871.55	9,465.80	14,188.05	35,525.40
less Total Hours Credit (resource hours "sold" to other Councils)	- 248.50	- 1,100.44	- 1,460.65	**- 2,809.59**
Percentage of productive hours "sold" to other Councils	2.1%	11.6%	10.3%	
plus Total Hours Charged (utilising other Council's Resource)	1,256.64	832.95	720.00	2,809.59
Total Hours booked to Jobs	**12,879.69**	**9,198.31**	**13,447.40**	**35,525.40**
Percentage of Total job hours completed by other Council Staff	**9.8%**	**9.1%**	**5.4%**	**7.9%**
Net productive hours over/under home Council resources	1,008.14	- 267.49	- 740.65	
Percentage of Net non-home council productive hours	**7.8%**	**-2.9%**	**-5.5%**	
Tier 2 Operational Management hours	**FNDC**	**KDC**	**WDC**	
Maintenance & Operations Manager (Aram Goes / FNDC)	453	136	147	
Capital Works & Procurement Manager (Greg Monteith / WDC)	176.5	413	293	
Strategy & Planning Manager (Jeff Devine / WDC)	77	34.5	760.5	

Table 3: Cross council OPERATIONAL resource allocation summary (1st July 2019 to 31st December 2019)

Removal of Tier 2 hours - Analysis Findings:

- At an operational level, FNDC is presently utilising the greatest percentage and total hours of other council operational resources to complete its works program.
- Both KDC and WDC allocate more of their own operational resources to other councils than they utilise in return.
- As expected, each of the Tier 2 Managers are spending a greater proportion of their time working for their assigned "relationship" council than the others.
- The reduced level of time booked to other Councils by the Strategy and Planning Manager is reflective of the historic vacancy of the WDC Asset Management Lead position, resulting in Jeff working at a more operational level than desired for the past 12 months. In the interim the regional support of Asset Management and Strategy has largely been covered by consultant resources, noting that with commencement of the newly recruited WDC Asset Management Lead on Monday 2nd March 2020 it is anticipated that Jeff Devine will fully transition into the more regionally focused role.

A.2. Recruitment

At the time of implementing the new structure (March 2019) 21 of the 64 identified NTA positions were vacant. Throughout 2019 significant recruitment activities were undertaken, with only one of the originally identified roles now remaining to be filled. The recruitment process enabled:

- Promotion of six existing staff into leadership roles
- External recruitment of 20 new staff, 15 of which have relocated to Northland from other parts of NZ or overseas.

Anecdotally, many external recruits stated they were attracted by the opportunity to work across the Region within the Alliance and would not likely have relocated for a single council position.

A.3. Delivering superior asset management

After finalisation of the 2018/21 Asset Management Plans NZTA completed a full audit and assessment of all submissions from across the country, with the result of this assessment ranking the WDC 2018/21 AMP as one of the top three in the country.

In addition to the assessment, NZTA identified required areas of improvement for each region that form the basis for development of the 2021/24 submissions. Utilising the original WDC 2018/21 plan as the base, the NTA Asset Management team are progressing completion of the identified improvement tasks to develop the 2021/24 submission. This submission will be in the form of a single Regional AMP document made up of:

- a single Regional Programme Business Case (defining the problem), and;
- the Detailed Business Case (specific funding requests for each Council's programme of works).

It is estimated that this will result in a saving of approximately $100k when compared with effort historically required to develop and submit individual Council AMP's.

B. IMPROVED TRANSPORT / CUSTOMER OUTCOMES

Analysis of Customer Interaction data (Period of 1st July -> 31 December) for each Council has identified a decrease across two of the three District Councils since the implementation of the new aligned Maintenance Contract Framework (1st July 2018).

1st July -> 31 Dec Customer Interactions	2017/18	2019/20	% Movement
Far North	2338	2163	-7.5%
Kaipara	1273	1181	-7.2%
Whangarei	2797	3147	12.5%
Total	**6408**	**6491**	**1.3%**

Customer Interaction per km network length	2019/20	Network Length (km's)	% Sealed	% Unsealed
FNDC	0.86	2508	35%	65%
KDC	0.75	1572	29%	68%
WDC	1.79	1761	60%	40%
Average	**1.11**	**5841**		

Customer Interaction per 1000 population	2019/20	Est. Population
FNDC	33.02	65500
KDC	51.35	23000
WDC	32.78	96000
Average	**35.18**	**184500**

Recognising Customer Interactions are only one form of measuring customer satisfaction / dissatisfaction, based on this analysis, the following observations have been made:

- Absolute Customer Interaction numbers – while FNDC & KDC Customer Interactions have reduced following implementation of the new maintenance contracts, WDC Customer Interactions have increased, largely due to the transition to a new Contractor (Downer) covering most of the network, specifically the Southern and Urban areas.
- Customer interactions per km network length - despite anecdotal belief that Customer Interaction volumes are predominantly driven by unsealed network issues, WDC has double the number of Customer Interactions per km with a significantly lower proportion of unsealed network.
- Customer interactions per 1000 population - with a significantly lower population than FNDC & WDC, KDC has a higher number of interactions per 1000 people.

C. IMPROVED REGIONAL STRETEGY, PLANNING AND PROCUREMENT

C.1. Linking Maintenance Outcomes to Asset Management Plan development

Key deliverables of the Maintenance, Operations and Renewals (MO&R) Contracts have been designed with the underlying principle of capturing and validating asset data to support informed asset condition assessment and increasing the quality of future Asset Management Plans to support required investment recommendations and decisions.

C.2. Development of Forward Work Plans

Forward Work Plans have been developed for each of the three District Council's 2019/20 Capital Works programs. These translate the individual Capital Works budgets into detailed programmes, identifying each individual project to be delivered. The developed FWP's provide:

- Forward visibility of work pipeline to Contractors
- Milestone reporting of project progress (inception through to construction)
- Project status updates and risk monitoring
- Project and budget item expenditure monitoring

From 2021, it is intended for FWP's to include extended horizon outlooks (up to three years) providing further surety for Contractors to enable them to make informed decisions for resource investments.

C.3. Maintenance, Operations & Renewals (MO&R) Contract Savings

While recognised that the re-tendering of Maintenance Contracts was required to be undertaken by each Council respectively, the combined NTA approach provided the opportunity to align scope, performance expectations and quality measures allowing Regional benchmarking to be undertaken to confirm relativity of tenders.

D. TRANSPORT INFRASTRUCTURE IS MORE AFFORDABLE

D.1. Savings & Cost Benefit Analysis – Overall

Table 4 provides the Annual and Cumulative benefits associated with activities undertaken by the NTA in the four financial years commencing 1st July 2016.

Region	2016/17	2017/18	2018/19	2019/20
Annual Savings/Cost	-$918,868	-$1,014,699	-$4,108,146	-$4,121,067
Cumulative Savings/Cost	-$918,868	-$1,933,567	-$6,041,712	-$10,162,779
KDC	**2016/17**	**2017/18**	**2018/19**	**2019/20**
Annual Savings/Cost	$189,236	$143,981	-$2,470,427	-$2,404,608
Cumulative Savings/Cost	$189,236	$333,216	-$2,137,210	-$4,541,818

Table 4: Summarised cumulative benefits (1st July 2016 to 30th June 2020)

D.2. Detailed Savings and Cost benefit Analysis

– NTA Initiatives (excludes Maintenance Contracts)

Table 5 summarises the total Annual and cumulative savings achieved over four financial years. The two largest drivers of this relate to:

- Savings associated with the ownership transfer to NZTA of Mangakahia Road.
- Annual operational costs associated with the establishment of the SSBU.

With KDC not benefiting from the savings associated with the ownership transfer of Mangakahia Road, this component resulted in an increased cost, noting that prior to the establishment of the NTA the Transport services were outsourced by KDC and overhead recovery costs included in the calculations below were previously included in consultancy charge out rates.

Region	2016/17	2017/18	2018/19	2019/20
Annual Savings/Cost	-$918,868	-$1,014,699	-$784,392	-$797,313
Cumulative Savings/Cost	-$918,868	-$1,933,567	-$2,717,958	-$3,515,271
KDC	**2016/17**	**2017/18**	**2018/19**	**2019/20**
Annual Savings/Cost	$189,236	$143,981	$166,834	$232,653
Cumulative Savings/Cost	$189,236	$333,216	$500,051	$732,704

Table 5: Annual and Cumulative benefit achievement analysis

D.2.1. On-going savings / cost details

Table 6 provides a summary of quantified monetary savings (and additional costs where appropriate) resulting from the formation of the NTA and the subsequent collaborative and improvement work completed, and excludes:

- any savings that would otherwise have been obtained through the traditional council operations (e.g. LED streetlight power savings).
- any benefits to a specific Council resulting from the NTA's ability to provide cross council coverage for vacant roles and activities.

These are "Annual Savings" and, once achieved, are on-going and cumulative.

Project	Classification	Year Achieved	Total value	Savings %	Dollars Saved	Reinvestment comments	Starting Year
HSD survey	Regional Efficiency	Supplier provided a 8% reduction in rates to undertake collection for three networks as one commission	$145,494	8%	-$11,640	Savings used to partially offset the increase inc cost moving from Manual to HSD process.	2016/17
Otaika Valley Rd Divestment - WDC	Ceased activity	Historic per annum maintenance and renewals	$1,150,000	100%	-$1,150,000	Reinvested into the Forestry roads remaining in the district - Sealed and Unsealed.	2016/17
Mangakahia Rd Divestment - FNDC	Ceased activity	Historic per annum maintenance and renewals	$350,000	100%	-$350,000	Reinvested into the Forestry roads remaining in the district - Sealed and Unsealed.	2016/17
Maintenance Management Reporting Tools	Reduced Effort	40hrs FTE * 5 Contracts	$26,000	80%	-$20,800	information an analysis tools to deliver further efficient from contracts.	2019/20
SSBU Operations	New Activity	Average annual value of $/yr.	$660,760	100%	$660,760	Cost shared across Alliance Partners as outlined within MoU	2016/17

Table 6: Identified "on-going" savings and costs attributed to the establishment of NTA

D.2.2. One-Off savings / cost detail

Table 6 provides a summary of quantified monetary savings (and additional costs where appropriate) for discrete and completed "one off" activities achieved through the NTA.

Project	Classification	Project Description	Total value	Savings %	Saving	Reinvestment
Maintenance Management Reporting Tools	One-off Cost	Cost to develop Automated Maintenance tools	$100,000	100%	$100,000	One off cost funded through Maintenance Contract Savings
Footpath Condition Surveys	Regional Efficiency	Collection of Footpath asset condition data utilised to assess and prioritise forward work programmes (3 yearly activity) - Supplier provided a 6.3% reduction in rates to undertake collection for three networks as one.	$46,518	6%	-$2,954	Savings reinvested in other Transport Activities
LED Procurement & Installation	On-off Savings	(better buying power and shipping)and by jointly procuring Lux Mapping surveys. More savings are expected due to the V-Cat infill lights being combined into two joint council contracts which tendered at same time.	$80,000	100%	-$80,000	Savings reinvested in other Transport Activities
2018/21 AMP Development	On-off Savings	Estimated 6 weeks of worked saved through use of the WDC 2018/21 AMP as the basis for FNDC AMP.	$36,000	100%	-$36,000	Resolved FNDC Asset Management resource gaps
2021/24 AMP Development	On-off Savings	Conservatively estimated savings through combining into one Regional 2021/24 Regional AMP instead of having 3 separate AMPs	$72,000	100%	-$72,000	Savings reinvested in other Transport Activities

Table 6: Identified "one-off" savings and costs attributed to the establishment of NTA

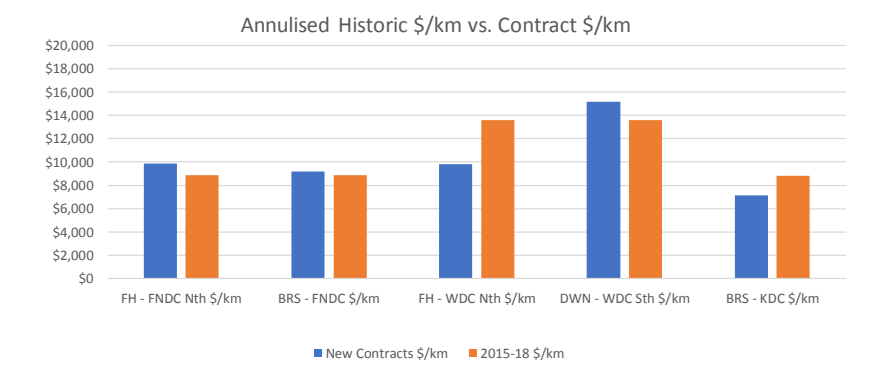
D.3. Savings and Cost benefit Analysis – Maintenance Contract renewals

Table 7 provides detail on the annual and cumulative impact of the new Maintenance Contracts compared with previous individual contracts.

Region	2018/19	2019/20
Annual Savings/Cost	-$3,323,754	-$3,323,754
Cumulative Savings/Cost	-$3,323,754	-$6,647,508
KDC	**2018/19**	**2019/20**
Annual Savings/Cost	-$2,637,261	-$2,637,261
Cumulative Savings/Cost	-$2,637,261	-$5,274,522

Table 7: Comparative Annual Savings / Cost Increase – calculated as cost/km

Comparative analysis below compares "Cost per kilometer" of new Maintenance contract rates with historic rates from previous contracts for each of the five maintenance contracts.



Next steps/E whaiake nei

It is requested for Councillors to note the contents of the report detailing the assessment of benefits achieved since formation of the Northland Transportation Alliance compared with benefit projections contained within the "Northland Transport Collaboration Opportunities" Business Case of 2016.