

To Dave Brash

Cc Peter Casey

From Tim Conder, Kevin Wright, Andrew Couch, Joseph Herde

Date 21 June 2016

Subject Auckland - Future Funding Options

Memo Purpose:

This paper summarizes initial progress on identification of funding and financing options to address a funding gap resulting from the Auckland Transport Alignment Project (ATAP). The focus is on funding or financing an expanded first decade programme, and is not limited to a central government funding gap. Feedback on sought on the discussion of options and next steps outlined at the end of this memo.

Discussion:

ATAP is identifying the preferred approach for developing Auckland's transport system over the next 30 years, including identifying the nature and scale of any funding "gap". The second ATAP deliverable has identified the potential for such a "gap" to exist, particularly in the first decade and also potentially from an Auckland Council perspective over 30 years. The final ATAP deliverable, due in August 2016, will provide more information about the nature and scale of the funding gap in relation to a recommended strategic approach.

A "long list" of funding and financing options has been identified, summarized below:

Category	Mechanism	Option
A. Increase existing charges	FED, RUC, PT fares, parking charges	1. Higher FED & RUC 2. Higher PT fares and parking charges
B. Redirect the existing national fund (NLTF)	Through funding assistance rate (FAR) to Auckland or allocating more of the NLTF to Auckland programme	3. Higher Auckland FAR - all investments 4. Higher Auckland FAR - for agreed corridors/projects 5. Front Loading FAR of agreed Auckland Transport projects 6. NZ Transport Agency delivery of agreed corridors/projects (at 100% FAR) 7. Greater allocation of NLTF to Auckland programme
C. Additional Crown Grants to Transport	Direct additional Crown investment in projects /programme or NLTF	8. Crown grant to Auckland (potentially delivered via the NLTF)
D. New Funding tools	Network pricing* Expand use of tolls Targeted rate/ Land Value Uplift*	9. Road pricing (finance in short term) 10. Toll new roads in Auckland (or existing) 11. Introduce new targeted rate or land value uplift tax
E. Financing**	General Crown Borrowing New Crown Bonds Auckland Council Bonds	12. General Borrowing through DMO 13. Sovereign Bond issuance 14. Auckland Council bond issuance
F. Combination Package for Projects	Combination	15. Combination packages for special projects 16. PPP for some projects meeting set criteria

Table 1: Long-listed options for ATAP funding under a "funding gap" scenario

* would likely also need to use financing in the short-term

**would need to utilise existing or new funding tools to repay

We note that the categories and options are not prioritized in the table or this paper.

A. Increasing existing charges

There are constraints on the ability to increase existing FED, RUC, PT fares and parking charges. Analysis could identify the additional revenue and the constraints relating to these.

B. Redirecting the NLTF

Options 3,4,5 and 6 on the "long list" are all ways to redirect the NLTF to Auckland projects either by increasing the FAR on an Auckland-wide or project-specific basis, or delivering agreed corridors at a 100% FAR either through re-designating them as State Highways or via an as-yet-undetermined process for transferring the asset back to Auckland Transport control. The options are not mutually exclusive, and such increases in FAR are compatible with a lower FAR for Auckland in later years (e.g. decades 2 and 3).

Option 7, Reallocation of the NLTF to Auckland projects, as opposed to providing new funds, could arise by virtue of the scale of the transport benefits/problems in Auckland. This could be at the expense of other projects elsewhere in the country. The net economic impact of this would need to be assessed.

Option 3: higher Auckland FAR (all investments)

Under this option, local road and public transport projects would be co-funded from the NLTF at a rate higher than 50%. However, this option does not increase transport funding; it merely reallocates funding from the rest of the country to Auckland. While it is theoretically possible to fill almost any funding gap with a sufficiently high Auckland FAR, there are limits to what can be accomplished using this method;

Option 4: higher Auckland FAR for agreed corridors

We are in the process of building a list of projects with total capital costs in excess of \$100 million for consideration for a higher FAR. Similar considerations to those for *Option 3* apply, namely that this option represents a reallocation of funding rather than an increase in it,

Option 6: NZ delivery of Agreed Corridors / Projects at 100% FAR

Under this option, The Transport Agency would take responsibility for funding and delivering some projects / corridors outside the State Highway network (e.g. key arterial or public transport projects), either via their re-designation as State Highways or through a process for transferring the project back to Auckland Transport.

Projects to be considered for re-designation as State Highways include:

- a) An arterial road that could potentially be re-designated as a state highway, or
- b) A rapid transit network (RTN) similar to previous RTNs that the Transport Agency has funded.

With these in mind Table 2 presents a list of projects being considered by ATAP that could theoretically be delivered by the Transport Agency as state highways:

Project	2011 - 2020	2020 - 2030	2030 - 2040	2040 - 2048
East West Link*	\$ 1,983	\$ -	\$ -	\$ 1,983
Mill Road	\$ 472	\$ 488	\$ -	\$ 960
TFUG - SH16 Kumeu bypass	\$ 424	\$ -	\$ -	\$ 424
TFUG - Pukekohe 4-lane expressway	\$ 353	\$ -	\$ -	\$ 353
AMETI	\$ 150	\$ 320	\$ -	\$ 470
TFUG - RTN from Oteha Valley Road to Grand Drive	\$ -	\$ 100	\$ 1,540	\$ 1,640
LRT City Centre to Akoranga	\$ -	\$ 1,100	\$ -	\$ 1,100
TFUG - Upper Harbour RTN - SH18 bus extensions	\$ -	\$ 92	\$ 255	\$ 347
TFUG - Penlink	\$ -	\$ 350	\$ -	\$ 350
Airport LRT to north	\$ -	\$ 1,450	\$ -	\$ 1,450
Grand Total	\$ 3,382	\$ 3,900	\$ 1,795	\$ 9,077

Table 2: co-funded transport projects possibly capable of re-designation as State Highways

* Already envisaged as a State highway project, but not yet designated

The total estimated cost of these projects is \$9.1 billion, of which approximately \$3.4 billion falls within the first decade. Were the Transport Agency to assume funding and delivery of these projects this would represent an incremental cost of \$4.3 billion overall (\$1.6 billion in the first decade), assuming a current FAR of 53%. This does not include ongoing MO&R.

We note the constraining effect such expenditure would have on the State Highway activity class. No consideration has yet been given to the present activity class of each project above and the potential subsequent available funding under the activity class in the NLTP.

D8. Road Pricing

Under this option, revenue from road pricing could be used to fund Auckland projects, either with or without Auckland Council co-investment. This is based on an assumption that the road pricing could result in additional revenue compared to FED and RUC. As road pricing would take a number of years to implement, in the short-term acceleration of projects would necessarily be reliant on financing or other funding options.

Next Steps for ATAP Funding Options

A paper will be prepared which identifies funding responsibilities for the ATAP Round 3 packages and the extent to which the funding gap is attributed to either Auckland Council or central government. This will be indicative based on current funding arrangements or assumptions.

Further analysis will be done on options selected from the long list and a shortlist developed. Suggested criteria for assessment of options could include: the effect of an option on the Crown, Transport Agency and/or Auckland Council balance sheets; the ease and rapidity of implementation; the likelihood that an option will raise sufficient revenue; cost of capital (where applicable); the likelihood of engaging private sector capital; perceived fairness; and so on. The paper will recommend a prioritised mix of options, drawn from the long list and varying according to the size of the identified funding gap, based on guiding principles drawn from work on the Transport Agency's internal Revenue and Financing Framework.

We will provide additional detail around ways in which the NLTF might be redirected; specifically an analysis of the effect of different FAR over the three decade period under consideration, including a so-called "frontloading" scenario, and more detail around the effect on Crown and Council overall funding shares if the Transport Agency were to take over specified local arterials on a build and operate basis. In addition the paper will consider the effect on revenue under a range of scenarios of the possible introduction of road pricing (*Option 9*), noting that such a pricing scheme should be regarded as a means to the end of managing congestion rather than of raising revenue.

ATAP – FINAL REPORT

As with the interim report, the final report is expected to bring together findings, outline a recommended strategic approach and make recommendations.

The following are draft suggestions as at 29 June 2016. These will be discussed by the Working Group on 30 June and further refined.

Content of Final Deliverable / Recommended Strategic Approach

1. A short summary of the strategic context for transport in Auckland, including key trends and the assumed land use/urban form (from the 1st deliverable, updated)
2. The agreed objectives, outcomes for transport in Auckland, and the most pressing issues and problems to be addressed (what/where/when) (from the 1st deliverable)
3. The new strategic direction (strategic case) for transport in Auckland (and the case for change from current direction). As per the 2nd deliverable, but further developed. Explain key elements of the approach – i.e. a “strategic vision” including why this approach:
 - a. Influence travel demand patterns: an outline of the key programmes, related targets and the critical pathway(s) to realisation
 - b. Clear priorities – priority deficiencies/interventions agreed for each area/corridor.
 - c. “Preferred package” of recommended investments (especially the priorities for the first 10 years). Costs and benefits of the preferred package
 - d. Provide new infrastructure: an outline/map of the agreed ‘completed’ strategic rapid transit and roading networks (by 2046) as well as the outlines of the greenfield areas (from TFUG) – with clear priorities/sequence across the networks and by corridor (particularly for the first 10 years.)
 - e. Making better use of existing networks: key areas for focus and improvement, and some targets/actions to keep us motivated
 - f. The outcomes for customers the strategic approach are expected to deliver
4. The funding required for the approach, and the scale and nature of any funding gap, and a pathway for introducing new tools where required.
5. Specific agreements (or recommendations for further work) around supporting actions needed to implement the recommended approach e.g. required land use policy and changes, governance and delivery arrangements, GPS review, AKL plan refresh etc.
6. Reference to evidence base to support conclusions and recommendations

As well as the report it would be good if we can fit on a one A1 poster or equivalent.

Report Structure

- A. Executive Summary
- B. Aligned Strategic Approach
 1. Background: brief introduction, including:
 - What is ATAP?
 - Project purpose and objectives
 2. Key Findings
 - Auckland’s transport challenges (1. Above)
 - Key conclusions from analysis (2. Above)
 - Strategic priorities/ deficiencies (2. Above)

3. Aligned Strategic Approach (3. & 4. Above)

- Strategic approach and rationale
- Implementation pathway
- Preferred package
- Costs and benefits
- Funding gap

4. Recommendations (5. Above)

- Actions required to implement
- Barriers to implementation
- Further work required

C. Background analysis and supporting information (6. From above)

- Further detail & evidence to support findings and recommendations, including:
 - Methodology
 - Options and scenarios tested
 - Evaluation results
 - Workstream investigations

Appendices and Working papers

Recommendations (on Steps Needed Implement)

POSSIBLE ATAP RECOMMENDATION	BARRIERS TO IMPLEMENTATION	FURTHER WORK NEEDED POST-ATAP	ATAP WORK PRIORITIES FOR NEXT 8 WEEKS
Adopt a strategic approach that consists of x, y, x and embed this in statutory documents	ATAP doesn't flow through into statutory processes	Amend GPS (MoT) Amend Auckland Plan (AC)	?
Greater network optimisation focus	Lack of clear guidance on how to progress. Funding certainty	NZTA and AT to resource and prioritise a greater network optimisation focus	<i>More specific recommendations to be developed.</i>
Proactive approach to new technology	Lack of incentives	Include in work programme for post-ATAP technology "task-force"?	Identify some possible incentives
	Regulatory obstacles to sharing	Include in work programme for post-ATAP technology "task-force"?	Identify key constraints and some suggestions for specific matters to address post-ATAP
	Old fleet: slow turnover	Include in work programme for post-ATAP technology "task-force"?	
	Existing agencies not demand-side focussed	Identify & set up best vehicle to take forward (e.g. task-	Is there evidence to suggest that existing agencies can't do

		force or implementation secretariat)	this?
Take steps to implement variable network pricing	Public acceptability		Results from tests with different pricing levels; impacts on user net benefits
	Lack of good alternatives (Incl PT)	Pre-pricing investment requirements	Indicative pre-pricing investment requirements
	Equity/distributional effects	Impact assessment and mitigation	Identify key areas that will need to be addressed from review of ATAP pricing options
	Technical challenges	More detailed work on what, how, when, pathway, technological requirements, payment method, price levels, etc.	Identify key areas that will need to be addressed, and suggest who should lead this
	Privacy issues National impacts		
	Implementation	Ensure key organisations are set up and resourced to deliver this programme.	<i>The demand management and variable pricing needs some quite specific recs on way forward, a proposed work programme or approach (i.e. joint work to deliver network variable pricing by x date, and the following interim steps).</i>
Align investments with strategic approach and preferred package	Funding gap	Determine how to fund any additional expenditure to cover 1 st decade (pre-pricing)	Identify gap & components (Govt. and AC)
	Prioritisation & specific investment decisions	Incorporate ATAP prioritisation framework into GPS, RLTP etc.	Develop prioritisation framework
	Funding arrangements		Outline possible alt funding arrangements
Ensure analytical tools	Rail funding & decision-making		Outline possible alt arrangements
	Model limited in ability to evaluate full impacts of	Model upgrade	Identify key issues and suggestions for

are fit for purpose	new technology and pricing options	programme	matters to address as part of upgrade programme
Continue to refine Land use plan	Lack of specific guidance on areas that should be pursued	Fit for purpose review of ATAP approach, reflecting the land use of the final Unitary Plan. Continue to seek opportunities for greater employment in greenfield areas to reduce transport burden.	<i>More specific recommendations?</i>
On a 3 yearly cycle, prior to the GPS updates, Government and Council should review this plan , adjust as necessary and reconfirm alignment	Overtime, alignment is lost		<i>More specific recommendations?</i>
Large Project Guidance	Lack of guidance from ATAP on issues to be addressed Generally, how development of project business cases should take strategic approach into account	AWHC Mass Transit Greenfield Areas	<i>Document lessons learnt / major unresolved issues for major projects</i>
Business Cases	Focus on problems is the right approach and continue for refine and imbed process. ATAP has been challenged as there is often poor information about the problem a project seeks to address, and the relative size/importance of that issue relative to others. Sub-optimal business cases on large projects appear to occur when one organisation doesn't work closely enough with other partners	NZTA should work with AOs and industry to ensure business cases coming through address this. Opportunities for right sizing the process should also be pursued.	
Recommendations for cross cutting or whole of system issues e.g freight			<i>To be developed</i>

DEMAND MANAGEMENT, PRICING AND TECHNOLOGY

The demand management and variable pricing needs some quite specific recs on way forward, a proposed work programme or approach (i.e. joint work to deliver network variable pricing by x date, and the following interim steps).

Demand Management (including enabling technology)

Elements of demand management include:

- Land use planning
- Encouraging multi-modal travel
 - Public transport, park and ride, interchanges
 - Walking and cycling
 - Travel planning
 - Ride Sharing
 - Communication
- Improved Efficiency and Network Management (i.e. Network Optimisation)
 - Traffic management systems (including connected vehicles)
 - Traveller information services
- Pricing
 - Network pricing (See next section)
 - Parking pricing

Technology can be an enabler of these elements.

It is recommended by ATAP that a greater emphasis is required on demand management activities in Auckland. Many of the above elements are currently being progressed well by the respective Agencies. However there could be significant benefit in greater focus on the following areas:

- Ride sharing opportunities
- Improved efficiency and network management
 - Traffic management systems including connected vehicles
 - Traveller information services

It is recommended by ATAP that:

- AT and NZTA consider how demand management elements should be managed and co-ordinated in Auckland. This should include governance, resources and a forward work programme. AT and NZTA to report back by Q3 2017 on progress.
- AT and NZTA (potentially through the Auckland Transport Operations Centre (ATOC)) develops a business case by Q4 2017 for further investment in traffic management systems and traveller information services.
- The 2018 GPS provide greater funding direction and focus for network optimisation in urban areas. Currently these activities compete against maintenance activities for funding.
- MoT/NZTA jointly progress further investigation into connected vehicles, initially focusing on implementation issues to be overcome.
- AC, working with AT and NZTA, progress the following land use planning opportunities:
 - Identify how employment in the west and south of Auckland can be increased, to reduce the projected increase in average commuting distance of these areas
 - Up-zone areas near the strategic public transport routes (including those routes being planned)
- ?

Network Pricing (including enabling technology)

It is recommended by ATAP that a variable network price for the entire system should be the ultimate goal. It is proposed to formulate a pathway to this end state.

- Form a joint investigation and delivery team (all ATAP parties. MoT as lead?). This team needs to be accountable for oversight all aspects of progressing this, including front footing the public communications.
- Scope and undertake initial investigation for pathway options. By Q2 2017 report back with pathway options to the Minister including recommendations. The initial investigations should include:
 - o Advice on a realistic implementation timeframe to reach the end state (variable network pricing for the entire system), taking into account advances in technology, changes to the fleet and what other countries are doing.
 - o The proposed scope for the next phase of investigation into variable network pricing. This is expected to include:
 - Identifying the best pricing, balancing demand management outcomes with other outcomes
 - Enhancing modelling of network pricing
 - Implementation issues to be addressed, including social and economic elements
 - Communication and engagement plan
 - o Options for practical near term steps that could provide a short-term step towards full pricing, taking into account the implementation timeframe to reach the end state.
 - o ?

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ATAP Prioritisation Framework

The purpose of the framework is to focus future business cases where they are most likely to provide best value for money.

to be confirmed by ATAP working, steering and governance groups

Items		Value for money		Benefits				Costs							
Business cases		Qualitative comparison of proposed projects		Evaluation against ATAP priorities and objectives using evidence on likely costs and performance.				Estimated range as developed for projects							
Overview of approach, to prioritisation		Recommendation on value for money potential		Consistency with strategic approach		Existing project evidence									
<p>Intervention</p> <p>A list of interventions will be collated based on the perceived need for a recommendation from ATAP.</p> <p>All known interventions above \$200m will be included.</p> <p>Interventions relating to the strategic approach will also be included.</p> <p>Where possible, business cases will be grouped by corridor so that they relate logically to the strategic networks, and contribute to a long term vision for the future.</p>		<p>that will likely be a statement to complement relative priority based on the evidence presented on benefits cases consistent with strategic approach and existing project evidence.</p> <p>Questions include whether: - It is a critical requirement for enabling pricing or technology - Pricing or technology likely to increase need for this investment - Sensitivity to potential changes in land use assumptions</p>		<p>Existing project information will be referenced and give context to the value for money recommendation.</p>		<p>Objective</p> <p>Enabling growth proposed by the unitary plan, with greatest focus on greenfield areas in the northwest</p> <p>Expected growth in number of households</p>		<p>Enables growth</p> <p>Peak hour commuter capacity from west and south, and to major employment centres.</p> <p>AM peak person-throughput</p>		<p>Employment Accessibility</p> <p>Corridors with severe interpeak congestion.</p> <p>Interpeak road speeds</p>		<p>Congestion (General traffic)</p> <p>PT patronage that addresses congestion on high demand corridors.</p> <p>AM peak public transport patronage</p>		<p>Costs</p> <p>Cost information will be sourced from projects where possible. Some items will not have any cost associated with them.</p> <p>In this case, commentary will be made on the feasibility of addressing an item given local constraints etc.</p>	
<p>Business cases</p> <p>Interventions will be grouped by priority area / deficiency focus into future 'business cases', which are prioritised.</p> <p>Where possible, business cases will be grouped by corridor so that they relate logically to the strategic networks, and contribute to a long term vision for the future.</p>		<p>that will likely be a statement to complement relative priority based on the evidence presented on benefits cases consistent with strategic approach and existing project evidence.</p>		<p>Existing project information will be referenced and give context to the value for money recommendation.</p>		<p>First decade focus</p>		<p>Comment</p> <p>First decade focus has been refined in an effort to reconcile top-down view (the ratings) with bottom up evidential view (measures) and are yet to be agreed.</p> <p>The balance of measures adopted is the most important aspect of the proposal and this is likely to be the most significant area of tension.</p>		<p>Central rating</p> <p>Average rating across benefits will be adopted.</p>					
<p>Measure</p> <p>Urban land supply strategy, unitary plan and SHAs, and the TP in business case.</p>		<p>Evidence from package evaluation in ATAP Rounds 1, 2 and 3.</p>		<p>Evidence from Rounds 1, 2 and 3 package evaluation.</p> <p>Supplemented by information from projects.</p>		<p>Evidence from Rounds 1, 2 and 3 package evaluation.</p> <p>Supplemented by information from projects.</p>		<p>This depends mainly on the measure chosen so be the least developed.</p>		<p>The enables growth methodology probably has the least 'science' behind it at present.</p>					
<p>Source</p>		<p>Agree measurement corridor(s) for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Agree key corridors for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Agree key corridors for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Agree key corridors for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Other</p>					
<p>Method</p>		<p>Agree measurement corridor(s) for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Agree key corridors for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Agree key corridors for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Agree key corridors for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Other</p>					
<p>Rating</p>		<p>Rating bands to be confirmed based on evidence.</p> <p>Agree measurement corridor(s) for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Agree key corridors for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Agree key corridors for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Agree key corridors for each item.</p> <p>Comparison of forecast impact on key corridor(s) in 2026 between common elements and ATAP package tests.</p>		<p>Other</p>					

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