TE MANATŪ WAKA
MINISTRY OF TRANSPORT

OC210814

3 November 2021

[redacted]

Withheld to protect personal privacy

Dear [redacted] Withheld to protect personal privacy

I refer to your request dated 7 October 2021, pursuant to the Official Information Act 1982 (the Act), where you requested responses to the following questions:

> *"1.What evidence-based assessment have the Ministry of Transport (MOT) undertaken to arrive at your funding ranges for the GPS 2021, particularly maintenance and renewals? Please provide copies of your assessment reports in relation to New Zealand roading networks (modelling, reports and presentations).*
> *2. What risks do you see to asset deterioration and levels of service impacts? How do you intend to manage those risks? Please provide copies of your reports (modelling, reports and presentations).*
> *3. Does the MOT have a 30 year strategy and how does the current GPS funding align with this strategy?*
> *4. In the light of the recent funding requests which was oversubscribed by significant margin, is the intention of MOT to review the GPS funding ranges to take into consideration the work done by local government in their asset management planning?*
> *5. What advice did you receive regarding appropriate investment levels in maintenance and renewal and from whom? Please provide copies of your conversations (emails, letters and reports).*
> *6. The cost of future treatments to restore levels of service will be manifold. This situation is not created by local ratepayers. Do you see that government should fully fund future increased costs to restore and maintain levels of service?"*

Firstly, I would like to direct you to the website of Te Manatū Waka Ministry of Transport (the Ministry) where key documents in the development of the GPS 2021 have been proactively released: Government Policy Statement on land transport 2021 | Ministry of Transport

Below I have provided responses to each of the questions in your letter:

1. *What evidence-based assessment have the Ministry of Transport (MOT) undertaken to arrive at your funding ranges for the GPS 2021, particularly maintenance and renewals? Please provide copies of your assessment reports in relation to New Zealand roading networks (modelling, reports and presentations).*

The Ministry received early advice from Waka Kotahi NZ Transport Agency (Waka Kotahi) on the appropriate level of investment for different activities in the maintenance and renewal activity classes each year for the next 10 years. The Ministry took these numbers and applied a 10 percent increase (and rounding up to the nearest $10 million) to calculate the upper funding range, and a 5 percent decrease (and rounding down to the nearest $10 million) to calculate the lower funding range.

Subsequent advice in response to changing circumstances was reflected as changes to activity class ranges.

Other than receiving the advice provided from Waka Kotahi that was used to set the funding ranges, the Ministry has not undertaken its own separate assessment.

2. *What risks do you see to asset deterioration and levels of service impacts? How do you intend to manage those risks? Please provide copies of your reports (modelling, reports and presentations).*

In developing the GPS 2021 funding ranges, we sought information from Waka Kotahi to understand the levels of spending necessary to maintain current levels of service across the transport system. The level of necessary spending that was advised sits between the lower and upper funding ranges, giving Waka Kotahi flexibility to spend more, or less, depending on the total funding available for the transport system.

GPS 2021 also makes it clear that Waka Kotahi should prioritise, among other things, operation and maintenance of the road network. By working with Waka Kotahi in setting the GPS funding ranges (usually at least once every three years), the Ministry seeks to ensure Ministers have clear evidence in terms of the levels of service that will be provided at the levels of investment that are made possible in a GPS.

3. *Does the MOT have a 30 year strategy and how does the current GPS funding align with this strategy?*

There is no one long-term strategy for the transport system. GPS 2021 seeks to give effect to other strategies and plans that the Government has agreed to, such as the Road to Zero road safety strategy, which has a ten-year view.

4. *In the light of the recent funding requests which was oversubscribed by significant margin, is the intention of MOT to review the GPS funding ranges to take into consideration the work done by local government in their asset management planning?*

When Waka Kotahi develop the National Land Transport Programme (NLTP), there is always significantly more funding sought than what is available, so the Ministry would not consider this in itself a reason to review the GPS funding ranges. The funding approved as part of the 2021–24 NLTP for local road maintenance is around 20 percent higher than what was available in the 2018–21 NLTP. In setting the funding ranges, Ministers considered the objectives for new investment, and the constraints of the total revenue available. The final funding ranges reflect that the National Land Transport Fund (NLTF) is under significant pressure, and the 20 percent increase for local road maintenance was considered to be appropriate given the other funding priorities.

5. *What advice did you receive regarding appropriate investment levels in maintenance and renewal and from whom? Please provide copies of your conversations (emails, letters and reports).*

The Ministry worked with Waka Kotahi to understand the appropriate levels of investment to maintain levels of service across the system.

The table below outlines the three communications being released to you in response to your request. You will see that certain information has been withheld under section 9(2)(a) of the Act, to protect the privacy of natural persons.

OIA doc #	Document title	Description of information withheld
1	Local Road Feedback Forms - Wayne Oldfield Communication with 3 attachments	Personal information – phone number s9(2)(a)
2	Draft base and base plus 2021/30 forecasts – 2/10/2019 with GPS Workshop WIP Outputs slides	Personal information – phone number s9(2)(a)
3	Draft base and base plus 2021/30 forecasts – 30/09/2019 With WIP activity class forecasts excel spreadsheet	Personal information – phone number s9(2)(a)

We also undertook significant engagement with stakeholders, including local government, to understand the transport investment priorities. In particular, we held regional workshops in all regions of New Zealand and considered submissions on a draft GPS from a wide range of stakeholders. You can find summaries of these engagement processes here:
https://www.transport.govt.nz/assets/Uploads/Briefing/Regional-Transport-Policy-Workshops.pdf

https://www.transport.govt.nz/assets/Uploads/Paper/SummaryofEngagement.pdf

6. *The cost of future treatments to restore levels of service will be manifold. This situation is not created by local ratepayers. Do you see that government should fully fund future increased costs to restore and maintain levels of service?*

Local roads are the responsibility of local government, and the NLTF provides co-funding to reflect what is affordable from a national perspective and consistent across New Zealand. Where councils wish to maintain their networks to a standard above the level of funding assistance agreed by Waka Kotahi, that is at the discretion of the council. Given local roads are local assets, and that there are significant other challenges facing the transport system that require funding, it is unlikely that the Government will increase the level of funding assistance for local road maintenance it provides in the near future. This would be an operational matter decided by Waka Kotahi with considerations taken on revenue constraints, existing commitments, and the appropriate GPS levels.

With regard to the information that has been withheld under section 9 of the Act, I am satisfied that the reasons for withholding the information at this time are not outweighed by public interest considerations that would make it desirable to make the information available.

TE MANATŪ WAKA
MINISTRY OF TRANSPORT

You have the right under section 28(3) of the Act to make a complaint about the withholding and refusal of information to the Ombudsman, who can be contacted at: **info@ombudsman.parliament.nz**

The Ministry publishes our Official Information Act responses and the information contained in our reply to you may be published on the Ministry website. Before publishing we will remove any personal or identifiable information.

Yours sincerely

[redacted]

Withheld to protect personal privacy

Tim Herbert
Manager, Investment

From: Wayne Oldfield <Wayne.Oldfield@nzta.govt.nz>
Sent: Thursday, 12 September 2019 3:28 pm
To: David Eyre
Cc: Matthew Skinner; Jonathan Luo
Subject: FW:
Attachments: #39 Local Road Maintenance DD.docx; #40 Local Road Operate DD.docx; #41 Local Road Renew DD.docx

Hi David

Here is our LR feedback forms.

Thanks
Wayne Oldfield CMEngNZ
Senior Manager, System Management
New Zealand Transport Agency
M [redacted]
E wayne.oldfield@nzta.govt.nz / **w** **nzta.govt.nz**

Find the latest transport news, information, and advice on our website:
www.nzta.govt.nz

Proposal 40: Local Road Operate

Description	The choice is how much to invest in the invest in the operation of existing local road to ensure the roads, cycleways and footpaths provide the best service possible to pedestrian, cyclists, passenger transport, freight and other vehicles using current infrastructure. This covers planning how to make best use of the transport system for all modes and circumstances, monitoring traffic flows and responding to issues as they develop, managing traffic flows, providing information to customers about traffic conditions incidents and events so they can choose the travels options best for them (traffic lights, variable messaging systems, traffic management centres, information feeds to other parties) and incident response and service restoration(responding to car crashes, or storm events, liaising with parties involved in response and service restoration)

Outcomes	The outcome is to keep the transport system providing the best performance it can for all users by keeping roads open and running efficiently. This assist mobility and access for users of all modes, it provides more reliable travel for priority modes

Why we need it	System operations optimise use of current transport networks thereby improving capacity and thus throughput and travel reliability. This improves mobility and access for users and defers the need for investment in capacity increase whether this is in infrastructure capacity through roads, busway or rail lines or through additional passenger transport services or larger vehicles. More people and goods can travel along existing routes with high use when flow is monitored and use of shared corridors and intersections managed to promote fluent use and priority modes than would otherwise be the case. Optimising traffic operations, in conjunction with minor improvements to network configuration or infrastructure, can increase the volume of people and goods that a corridor or network can carry by removing bottlenecks or by addressing conflicting use of shared space. Together these activities reduce or defer the need for increasing public transport or other mode capacity. The impact of events and incidents is reduced, safety risk minimised, and service restored more rapidly when traffic flows are monitored so incidents are detected and response initiated early, customers informed about traffic performance and travel options so they are better able to choose how and when to travel, and service restored promptly by resolving incidents or putting in place alternatives until service is restored. Operations centres manage incidents from the rare but significant incidents such as the Kaikoura earthquake, to the smaller day to day events such as a vehicle running out of fuel disrupting traffic. They head the agencies operational resilience and civil defence response capability.

Specific benefits	Improved system operations improve travel for priority modes e.g. for busses along bus lanes, pedestrians to and from PT terminals, freight to ports or rail hubs. Because transport systems are interdependent there is a need to operate adjacent networks as one, as is the case for traffic operations in Auckland. System optimisation is a key part of mode shift by making passenger transport more reliable and attractive, for example. Inadequate SH operations will result in:

	• Loss of throughput of people of goods on State highway networks and on adjacent local road networks. SH and local road networks are interdependent where they are adjacent. • Delayed response to incidents, greater impact and slower recovery of service. Poorer monitoring of flows will lead to slower detection of incidents. Reduced operations will cause response and restoration of service to be less rapid, and with less context specific refinement allowing impacts to be greater, more widespread and longer. Because it will be harder to optimise responses and provide pertinent information to customers regarding the travel choices they have. • Potential increased safety risk where traffic is not slowed or guided around hazards promptly • Reduced effectiveness or rapidity in responding to natural events.

Consequence of not having it	The costs are increased delays and loss of mobility and access, particularly for those sections of the community reliant on private vehicles to access employment or those reliant on reliable passenger transport for mobility

Funding requirements for GPS 2021 ($m)

Activity class	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Activity class name (add new rows if the initiative covers more than one)	70	72	73	75	77	79	81	83	85	87

Scaling and phasing opportunities	The current option has increases of around 2.5% per year there are options for lower or higher increases. The level decided on will depend on evidence on the state of the network proof of efficiencies and agreement why this expenditure provided more benefits than other options

Ministry of Transport recommendation	Spending on operating maintenance supports optimising the use of the current network. It includes traffic operating centres that enable quick restoration of the highway after crashes and increasing throughput with devises such as ramp metering and variable messaging systems. NZTA state they have information that confirms traffic operating centres have a high BCR ratio. Operations costs on local roads have been lower but are expected to increase as traffic operation extend to more local roads than in the past. The Ministry is supportive of optimising the network but doesn't have sufficient information to know whether local councils/NZTA is efficiently running operating maintenance and whether an increase would give good optimising benefits.

oProposal 41: Local Road Renew

Description	The choice is how much to invest in the renewal of existing local roads to deliver an appropriate level of service. Renewal covers unsealed road metalling, sealed road resurfacing and rehabilitation, drainage renewals and structural component replacements.

Outcomes	The outcome of renewals is to replace degraded assets at the end of their service life so the same level of service can be provided to ensure roads, footpaths and cycleways provide the required level of service for the least long term maintenance plus renewal cost. This enables access and safety benefits to be delivered efficiently and effectively. Careful choices in this area lead to value for money by reducing the whole of life costs especially balancing maintenance vs renewal.

Why we need it	The local road network has about 83 000 km of roads, it carries 50% of vehicle movements in NZ, it carries most on road passenger transport, pedestrian and cycle movements, it provides the majority of the first and last mile access to and from destinations. As we improve the liveability of urban areas the importance of on-road vibrant activity places will grow, and as infrastructure is adapted or rebuilt to better meet these needs the scope of maintenance activities and required investment will change. The local road network is diverse: • 35% is unsealed • 85% of the population lives in urban areas and have different transport needs to the 15% that is rural • Some communities are experiencing rapid growth, and others gradual decline in population The local road network provides good levels of access and mobility. However, service level expectations are rising. There has not been as systematic, objective and consistent an approach to asset management of footpaths as there has been for roads across NZ. This means there is uncertainty in the condition and performance of these against performance expectations or standards, and so uncertainty around the extent of investment required and how to apply this equitably across NZ. The 2018/21 NLTP invested in footpath maintenance, however we now expect that a greater provision will be required for 2021/24 by about $10M pa renewals with a commensurate provision in maintenance. There is a growing need for bridge replacement for end of life and undercapacity bridges hampering the movement of freight across rural networks. While the replacement of bridges as a whole will be funded through the improvements activity class this activity class will be the source of funds for component replacements such as stronger bridge decks, or beams. We do not have a good quality estimate of the cost of this but recommend a provision of $20M pa be made for this activity. **Use emulsion based road surfaces rather than hot spray bitumen to reduce worker risk** Most chipseal surfaces are built by spraying hot bitumen onto the road and then covering the 1-2mm film with stone chip. The bitumen is between 180 -190 C presenting a severe burn risk to workers. An alternative is to use emulsified bitumen which is applied at about 100 C so is much safer. The relative risks are shown in the table. We recommend adopting

	the use of emulsified bitumen as it is a practicable way to reduce the risk to workers. The direct cost to the local roads maintenance activity class is about $15,000,000 pa. The Agency is considering this decision too. If the agency adopted full use of emulsion seals it is likely the practice would be applied across all RCAs adding about $45,000,000 over 2021/24 to local roads renewal expenditure. As can be seen the frequency of incidents is similar for cutback and emulsified bitumen but there is a difference in the severity of the incidents. The WSP Opus report has attempted to place costs against the incidents using the Ministry of Transport figures for fatal, serious and minor accidents. Using these figures the injury costs in a typical year when using 100% hot spray bitumen would be $1,940 million compare to $0.306 million when using 100% emulsion, a reduction of $1,634 million. Accident data 2009-2019 for use of hot spray and emulsions from Olsen (2014) and CCNZ (2019).

Incident	Number of incidents		Number of incidents per 100,000 tonnes of binder sprayed	
	Hot spray bitumen	Emulsions	Hot spray bitumen	Emulsions
Fatality	1	0	0.255	0
ACC claims- minor injury	16	5	3.347	6.820
ACC claims involving serious harm	6	0	1.438	0
Serious incident (close call)	128	22	24.482	21.740
Total	156	27	29.522	28.560

Note: A serious harm incident was based on the ACC definition.

A decision to universally adopt emulsions is supported by industry. We should develop a sector wide implementation approach so that plant is adapted, work crews trained, and practices adapted for the 2021/24 NLTP period, with the required developments in budget reflected for that period.

Specific benefits	A certain level of maintenance is essential to ensure the appropriate level of service is maintained. LR renewal ensures service levels are maintained by replacing end of service life road surfaces; stormwater channels, footpath or cycleway surfaces where their performance cannot be maintain any longer or where it is cheaper to replace them than perform a growing number of defects. Activities and their impact are shown in the following table.

		Transport Outcomes				
Activity	Description	Inclusive access	Economic prosperity	Resilience and security	Health and safety	Environment
Road surface and pavements	Repair and replace road surfaces and pavements to safely and reliably carry general and freight traffic day after day after day, using safe and noise mitigating surface types.	++	++++++	++	+++	–
Bridges, tunnels	Maintain safe access across and around rivers, valleys, ridges and places	++^^	++++++	++	+	
Walls and slope management	Mitigate risk of rockfall and slips above and below the roadway	++	++	+++	++	
Traffic management	Guide and manage travel demand to make best use of current capacity across inter-dependant multi-modal transport networks	++	+++++	+++	+	
Manage incidents and events	Mitigate impact of events and incidents on system capacity, providing alternatives, restoring service		++++	++++	++	
Storm water management	Repair and replace drainage infrastructure to reduce flooding, protect infrastructure and treat or contain pollutants	++	++	+++		+++
Safety devices, barriers and delineation	Maintain lighting, road markings and signs safety barriers and devices to support, guide and direct safe network use and mitigate risk and harm from any error			+++	++++++ +	
Vegetation management	Manage roadside vegetation to maintain sightlines for travellers, eliminate pest plants, encourage bio-diversity, reduce risk for traffic				+++++	+++++
Amenity	Remove litter & graffiti, provide rest areas	+	+++		++++	++
Emergency works	Repair and replace infrastructure damaged by natural events to restore access, then restore service levels		++	++++++	++	

The Agency in partnership with LGNZ assisted Councils improve their asset management plans ahead of the 2018/21 NLTP and assessed each plan for quality. All plans provided good confidence for investment once identified issues were remedied.

Many councils have adopted formal and informal collaboration through which they learn from each others successful practice, and share resources to improve their efficiency and effectiveness. In addition the REG partnership between the Agency and local government had provided support for councils improving their asset management and a forum for sharing good practice, or questions, and learning from each other. This partnership has implemented a website which provides comparative reporting of agency technical infrastructure and performance metrics enabling councils to compare their data with that of similar agencies.

Consequence of not having it	The risk of too little renewals is a deteriorating transport network (resulting in higher vehicle operating costs), reduced safety and a higher whole of life cost. Depending on the duration and extent of constraint, the deterioration may reach a point where speed restrictions are necessary to maintain safety or access not reasonably possible. The immediate impact of reduced renewals will be: • an increasing in the number and impact of defects, increasingly frequent and extensive repairs to restore access and service and consequent increase in traffic disruption; until maintenance funds are exhausted

	• greater deterioration in infrastructure • increased costs of replacing collapsed infrastructure to restore service • reduced road safety

Funding requirements for GPS 2021 ($m)

Activity class	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Activity class name (add new rows if the initiative covers more than one)	338	346	355	364	373	382	392	401	411	422

Scaling and phasing opportunities	The current option has increases of around 2.5% per year th re are options for lower or higher increases. The level decided on will depend on evidence on the state of the network proof of efficiencies and agreement why this expenditure provided more benefits than other options.

Ministry of Transport recommendation	Less information is know about the conditions of local ro ds and on the need for an increase in renewals. State highways are built to handle heavier loads more than local roads. So while the increase is heavy trucks is less than state highways they are more affected. One area where there is clear information is in a area of bridge renewals where there is a large number of renewals needed. The Ministry awaits more information to make a decision.

Proposal 39: Local Road Maintain

Description	The choice is at what level to invest in the maintenance of existing local road[1]s to deliver an appropriate level of service, excluding asset upgrades. This covers maintenance on sealed and unsealed pavement, footpaths, cycleways, drains, environmental and structure maintenance. Maintenance expenditure is optimised against renewal works or replacement of end of service life infrastructure. Together they should deliver continued service levels for the least long term cost and risk. A decrease in renewal investment leads to increasing defects occurring and more repairs being required to maintain service levels in.

Outcomes	The outcome of maintenance is to ensure roads, footpaths and cycleways are kept to the required level of service, and that infrastructure doesn't decay p ematurely. This helps to continue existing access and safety benefits. Careful choices in this area lead to value for money by reducing the whole of life costs. Maintenance works: • repairing defects in infrastructure affecting perfo mance or long term cost and performance by, for example repa ring potholes, trip hazards on footpaths and road safety barriers after they have been hit • conducting preventive maintenance to ensure infrastructure remains if fit for purpose condition by, for example, main aining drainage channels and painting structures in order that groundwater doesn't damage road pavements, and structures don't deteriorate • ensure infrastructure and the road corridor is kept in a fit for purpose condition by, for example: cleaning road signs and marker posts so they can be seen at night, and cutting road side vegeta ion so motorists views ahead are not obscured This enables access and safety benefits to be delivered efficiently and effectively. Careful choices in this area lead to value for money by reducing the whole of life costs especially ba ancing maintenance vs renewal.

Why we need it	The local road network has about 83,000 km of roads, it carries 50% of vehicle movements in NZ, it carries most on road passenger transport movements, it provides the majority of the first and last mile access to and from destinations. As we improve the liveability of urban areas the importance of on-road vibrant activity places will grow, and as infrastructure is adapted or rebuilt to better meet these needs the scope of maintenance activities and required investment will change. The local road network is diverse: • 35% is unsealed • 85% of the population lives in urban areas and have different transport needs to the 15% that is rural • Some communities are experiencing rapid growth, and others gradual decline in population The local road network provides good levels of access and mobility. However service level expectations are rising. There has not been as systematic, objective and consistent an

[1] We use the term road because the definition used in the Local Government Act of "Road" is relied on in transport legislation, and is described as including footpaths, cycleways as well as vehicle carriageways. The word "Street" is now commonly used in place of Road, which has come to mean vehicle carriageway.

	approach to asset management of footpaths as there has been for roads across NZ. This means there is uncertainty in the condition and performance of these against performance expectations or standards, and so uncertainty around the extent of investment required and how to apply this equitably across NZ. A principle is that providing better access means making the best use of the existing transport network before considering investment in new infrastructure or services.

Specific benefits

A certain level of maintenance is essential to ensure the appropriate level of service is maintained.

LR maintenance ensures service levels are maintained by:

- Repairing defects in infrastructure as they occur, eg restoring stormwater channels to a water tight condition so they don't leak water into road structures making them vulnerable to damage by freight.
- Conducting preventive maintenance to slow the decay of infrastructure eg by painting steel beams on bridges
- Ensuring infrastructure is in a fit for purpose condition by conducting such activities as removal of debris from footpaths and road surfaces to ensure pedestrians and motorcyclists are safe
- Maintaining urban pedestrian and bus infrastructure in a fit for purpose state

Activities and their impact are shown in the following table.

		Transport Outcomes				
Activity	Description	Inclusive access	Economic prosperity	Resilience and security	Health and safety	Environment
Road surface and pavements	Repair and replace road surfaces and pavements to safely and reliably carry general and freight traffic day after day, using safe and noise mitigating surface types.	++	++++++	++	+++	--
Bridges, tunnels	Maintain safe access across and around rivers, valleys, ridges and places	++^^	++++++	++	+	
Walls and slope management	Mitigate risk of rockfall and slips above and below the roadway	++	++	+++	++	
Traffic management	Guide and manage travel demand to make best use of current capacity across inter-dependant multi-modal transport networks	++	+++++	+++	+	
Manage incidents and events	Mitigate impact of events and incidents on system capacity, providing alternatives, restoring service		++++	++++	++	
Storm water management	Repair and replace drainage infrastructure to reduce flooding, protect infrastructure and treat or contain pollutants	++	++	+++		+++
Safety devices, barriers and delineation	Maintain lighting, road markings and signs safety barriers and devices to support, guide and direct safe network use and mitigate risk and harm from any error			+++	++++++	
Vegetation management	Manage roadside vegetation to maintain sightlines for travellers, eliminate pest plants, encourage bio-diversity, reduce risk for traffic				+++++	+++++
Amenity	Remove litter & graffiti, provide rest areas	+	+++		++++	++
Emergency works	Repair and replace infrastructure damaged by natural events to restore access, then restore service levels		++	++++++	++	

	The Agency in partnership with LGNZ assisted Councils improve their asset management plans ahead of the 2018/21 NLTP and assessed each plan for quality. All plans provided good confidence for investment once identified issues were remedied. Many councils have adopted formal and informal collaboration through which they learn from each others successful practice, and share resources to improve their efficiency and effectiveness. In addition the REG partnership between the Agency and local government had provided support for councils improving their asset management and a forum for sharing good practice, or questions, and learning from each other. This partnership has implemented a website which provides comparative reporting of agency technical infrastructure and performance metrics enabling councils to compare their data with that of similar agencies.

Consequence of not having it	The risk of too little maintenance is a deteriorating transport network (resulting in higher vehicle operating costs), reduced safety and a higher whole of life cost

Funding requirements for GPS 2021 ($m)

Activity class	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Activity class name (add new rows if the initiative covers more than one)	281	288	295	303	310	318	326	334	343	351

Scaling and phasing opportunities	The current option has increases of around 2.5% per year there are options for lower or higher increases. The level decided on will depend on evidence on the local road network of the network proof of efficiencies and agreement why this expenditure provided more benefits than other options

Ministry of Transport recommendation	Local roads are facing increased costs because of higher demand, cost pressures and changing characteristics of the network. Cost pressures: the costs of road maintenance have increased above the level of inflation particularly given oil price rises. Characteristics of the network have changed: in cities: increased maintenance costs because of heavier buses and more extensive bus networks. Also, because of more bus lanes and cycleways. There is also an increased demand for footpath maintenance. The safer network programme will provide more safety features to reduce pedestrian injuries that will require maintenance. However, the demand pressures are lower than those on state highways because: • local roads have lower proportion of heavy vehicle traffic so have less pressure on pavements than state highways. • local road maintenance were not restricted over the last 10 years to the same extent Local roads however do have high costs on their unsealed networks during forestry harvesting.

	Local council are collaborating across regions to share capacity and to drive value for money. This includes moderating and challenge bids and questioning timing and selection. The Ministry can't make a recommendation until it sees the evidence from NZTA.

From: Ian Duncan <Ian.Duncan@nzta.govt.nz>
Sent: Wednesday, 2 October 2019 5:29 pm
To: Matthew Skinner
Cc: John.Coulter; Barbara Tebbs; Brigit Stephenson; Brett Gliddon; Rachael Lowe; Michelle Lou; Helen White; Danielle Bassan; Deborah Hume
Subject: RE: Draft base and base plus 2021/30 forecasts
Attachments: GPS workshop 2 WIP outputs v1.1.pptx

Matt,

As promised here is our draft (work in progress) output from workshop 2 re improving freight connections... note , no costings in this; we are looking at how we provide some idea of affordability/ investment thresholds in workshop 5 i.e. the optimisation workshop.

- Re your request to update timings, we are meeting tomorrow to try to lock-in our timings for the provision of the remainder of our outputs / thinking to enable you to hit your deadline of having your info for the Minister prepared by 17 October.
- Re base data we are currently undertaking further sense checking and hope to have an update to you by the end of the week

Regards

Ian

Ian Duncan / Chief Advisor
Chief Executive's Office
DDI [redacted] / **M** [redacted]
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From: Matthew Skinner <m.skinner@transport.govt.nz>
Sent: Monday, 30 September 2019 6:30 PM
To: Ian Duncan <Ian.Duncan@nzta.govt.nz>
Cc: John Coulter <John.Coulter@nzta.govt.nz>; Barbara Tebbs <Barbara.Tebbs@nzta.govt.nz>; Brigit Stephenson <Brigit.Stephenson@nzta.govt.nz>; Brett Gliddon <Brett.Gliddon@nzta.govt.nz>; Rachael Lowe <R.Lowe@transport.govt.nz>; Michelle Lou <Michelle.Lou@nzta.govt.nz>; Helen White (Ministry of Transport) <h.white@transport.govt.nz>; Danielle Bassan <D.Bassan@transport.govt.nz>
Subject: RE: Draft base and base plus 2021/30 forecasts

Thanks Ian, that's a useful update. Completely appreciate the draft nature of it at this stage!

In terms of the wider picture, we have been giving the Minister an idea of the process we are going through and timeframes for when we expect to be getting things to him. The information we are getting from you becomes really important for us to be able to meet these deadlines. Given you've done a bit more of the work now and hopefully

have a better idea of realistic timeframes, would it be possible to update the dates I am currently working to below? This table is only based on conversations with Brigit and was not formalised, but I'm keen to get a common understanding of when we will be getting everything so we are both on the same page and presenting a realistic picture to the Minister.

Workstream	Workshop date	Date MoT to receive options and data	Revised date for NZTA to give final data
#1 Base case	23-Sep	27-Sep	
#2 Improving freight connections	26-Sep	2-Oct	
#3 Better travel options	1-Oct	?	
#4 Safety	3-Oct	?	
#5 Optimised programme with scenarios	7-Oct	9-Oct	

Based on the above, we were hoping for the outputs of #5 to come a day or two after the meeting on 7 October. This data is really key for us to be able to present a draft GPS 2021 to the Minister, because without understanding what things we are trying to prioritise and how much they will cost, the GPS doesn't really mean a lot. But given you've now started to cost the strategic priorities, do these timeframes still seem sound?

Happy to discuss if you have any concerns.

On the draft base data itself I have a few more questions, which would be good to work into the next version as you start to further refine.

- For the cross-cutting issues, can you make an assessment around the activity class it will fall into? So maybe instead of having separate cross-cutting issues down the bottom, we can have a #1 meeting debt commitments under each activity class with the appropriate amount. The same goes for ATAP — at some stage we will need to understand the cost of ATAP in each activity class so that we can properly account for how much it is going to cost. This helps me to be confident that we aren't double counting any of the costs.
- Existing transitional rail — under the base option, is some of this already committed? In which case, as above, it should instead come under the 'estimated costs of completing approved investment' line, which will be under the rail activity class.
- State highways (and local roads) — shouldn't emergency works and imperatives be positive numbers? The idea of imperatives is that it should show the expected costs of bridge replacements and other essential improvements. Emergency works should have an annual assumption of the cost. Or is it just that all of the costs are merged into the maintenance line in the breakdown?

I'm hoping that by tomorrow I'll be able to work these into a draft spreadsheet that spits out how I am planning to present this data in our briefings to the Minister (I've just been struggling for time!) — I'll share this once I'm done.

Thanks,
Matt

Matt Skinner
Senior Adviser
Ministry of Transport – Te Manatū Waka

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Enabling New Zealanders to flourish

From: Ian Duncan <Ian.Duncan@nzta.govt.nz>
Sent: Monday, 30 September 2019 5:25 PM
To: Matthew Skinner <m.skinner@transport.govt.nz>
Cc: John Coulter <John.Coulter@nzta.govt.nz>; Barbara Tebbs <Barbara.Tebbs@nzta.govt.nz>; Brigit Stephenson <Brigit.Stephenson@nzta.govt.nz>; Brett Gliddon <Brett.Gliddon@nzta.govt.nz>; Rachael Lowe <R.Lowe@transport.govt.nz>; Michelle Lou <Michelle.Lou@nzta.govt.nz>
Subject: RE: Draft base and base plus 2021/30 forecasts

Hi Matt,

Sorry I hoped to have this to you earlier in the day.

This is a further breakdown for the base and base plus activity classes. I must stress at this point this should be considered only a working best current estimate, as we have not yet had time to review the data behind these figures.

Re you other questions from Friday

- What is the cross-cutting issues section supposed to show?
- *The cross-cutting rows contains activities which, cut across a number of other activity classes and/or GPS priorities*
    - The numbers under each of the items don't make much sense to me.
    - *We discuss the PPP in the question below, as we do for ATAP and LGWM... the environmental allocation is to meet a 6 year noise remediation programme across our network in locations where we know we are not currently meeting our requirements.*
    - What is included in here, and why is some (e.g. PPP repayments) included in the activity classes, but the spend under meeting debt repayments included here instead of in the relevant activity class it would be repaid from?
    - *PPP repayments are all listed in the cross-cutting issues area...more so to daylight we have work already done or underway that has a debt repayment component and what the extent of that component is.*
    - And why would base+ be higher for debt commitments — surely as a debt commitment there is no flexibility?
    - *Valid point we are going to check these again...they seem a bit low as well!*
- I thought we had decided not to include ATAP in Base or Base+, except for things that actually fit in there, in which case they shouldn't need to be singled out as they should be part of national assumptions (e.g. for maintenance)?
- *Nothing for either in Base but a limited amount in Base Plus to take some of their contribution to managing growth*
- I don't understand why we would have walking and cycling in the base? Unless those are all approved projects?
- *I agree, there will be some committed projects carrying over but those won't go for the full 10 years...I think when we get onto the 'better travel options – people' priority we will chase a fare bit of this out of the base. I'm going to check with our walking and cycle team on this is the morning and get back to you so that we can adjust the base sooner if it warranted.*

Best regards

Ian

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PO Box 5245, Moray Place, Dunedin 9058, New Zealand

From: Matthew Skinner <m.skinner@transport.govt.nz>
Sent: Monday, 30 September 2019 3:02 PM
To: Ian Duncan <Ian.Duncan@nzta.govt.nz>
Cc: John Coulter <John.Coulter@nzta.govt.nz>; Barbara Tebbs <Barbara.Tebbs@nzta.govt.nz>; Brigit Stephenson <Brigit.Stephenson@nzta.govt.nz>; Brett Gliddon <Brett.Gliddon@nzta.govt.nz>; Rachael Lowe <R.Lowe@transport.govt.nz>
Subject: RE: Draft base and base plus 2021/30 forecasts

Hi Ian,

Just wondering if you've had any luck in breaking the numbers down further? The key thing here is being able to give the Minister some oversight on the "why?" so that he understands the logic for setting the levels that we propose.

Going back to the original request, which we haven't moved on from, he said that he wants to understand the activities and choices that make up each activity class, along with the assumptions for how much they will cost over 10 years, to allow for clear decision making and trade-offs in setting the activity classes. To do this, we need to be able to give more than just a single number for each activity class, because as we've gathered over the past few months that we've been discussing this, there are a lot of assumptions behind these numbers that the Minister should be aware of.

Thanks,
Matt

Matt Skinner
Senior Adviser
Ministry of Transport – Te Manatū Waka

M: [redacted] | www.transport.govt.nz

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Enabling New Zealanders to flourish

From: Ian Duncan <Ian.Duncan@nzta.govt.nz>
Sent: Friday, 27 September 2019 6:02 PM
To: Matthew Skinner <m.skinner@transport.govt.nz>
Cc: John Coulter <John.Coulter@nzta.govt.nz>; Barbara Tebbs <Barbara.Tebbs@nzta.govt.nz>; Brigit Stephenson <Brigit.Stephenson@nzta.govt.nz>; Brett Gliddon <Brett.Gliddon@nzta.govt.nz>
Subject: Re: Draft base and base plus 2021/30 forecasts

Hi Matt,

I'll get onto this first thing Monday. We should be able to answer your questions and break the activity classes a bit further.

Ian

Get Outlook for iOS

From: Matthew Skinner <m.skinner@transport.govt.nz>
Sent: Friday, September 27, 2019 5:47:28 PM

To: Ian Duncan <Ian.Duncan@nzta.govt.nz>
Cc: John Coulter <John.Coulter@nzta.govt.nz>; Barbara Tebbs <Barbara.Tebbs@nzta.govt.nz>; Brigit Stephenson <Brigit.Stephenson@nzta.govt.nz>; Brett Gliddon <Brett.Gliddon@nzta.govt.nz>
Subject: RE: Draft base and base plus 2021/30 forecasts

Hi Ian,

Thanks for sending this through.

Can you please provide the inputs that feed into attachment 1? The point of this exercise is so that we can understand the different items that contribute towards the costs in each activity class. The info below is a good start towards understanding that, but just providing a single number for each activity class provides no assurance to the Minister that these are the right levels at which the activity class must be set. I still want to be able to do something similar to what I initially proposed, which I think I should be able to do if you provide me a further breakdown of the activity classes.

I have a few other questions (which might answer themselves with the breakdown of the data):

- What is the cross-cutting issues section supposed to show? The numbers under each of the items don't make much sense to me. What is included in here, and why is some (eg PPP repayments) included in the activity classes, but the spend under meeting debt repayments included here instead of in the relevant activity class it would be repaid from? And why would base+ b higher for debt commitments — surely as a debt commitment there is no flexibility?
- I thought we had decided not to include ATAP in Base or Base+, except for things that actually fit in there, in which case they shouldn't need to be singled out as hey should be part of national assumptions (eg for maintenance)?
- I don't understand why we would have walking and cycling in the base? Unless those are all approved projects?

Thanks,
Matt

From: Ian Duncan <Ian.Duncan@nzta.govt.nz>
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Subject: Draft base and base plus 2021/30 forecasts

Matt,

This afternoon, we are providing you with the following attachments:

1. **Attachment 1** - work in progress (WIP) 'base' and 'base plus' activity class forecasts for the 2021/30 GPS.
2. **Attachment 2** – **DRAFT White paper on SH Maintenance whitepaper 27 September 2019**, sets out the rational for the base plus case **Note:** (i) this is a **draft**; and will continue to be refined; (ii) reviewed by our investment team is required.

Note (Attachment 1 :

- *'base'* is defined as maintaining current outputs (ideally with CPI, not confirmed for all activity classes) and contractual commitments. This does not account for growth in vkt, patronage, sea-level rise etc.
- *'base plus'* is defined as maintaining the current service level going forwards (but no more) so it does account for additional costs re providing for increased heavy vkt in terms of pavement maintenance and maintaining existing LoS (but no better) in regard to e.g. passenger provision for projected growth and contractual commitments
- Given the time constraints on this work, these forecast costs should be considered rough order, we will be able to provide better refinement over time.

There are a number of caveats to the provided to the WIP base and base plus (Attachment 1). They are as follows:

i. **Walking & cycling - This proposal excludes** known ATAP and LGWM projects, which includes Sea Path, Auckland Harbour Bridge shared path, and Petone to Ngauranga.

ii. **Rail**

a. **Base** - the two projects included in the base cost (i.e. we've allocated implementation funding): Wellington metro catch up renewals and Wellington metro capacity improvements"
b. **Base plus** – in addition to base, this consists of the identified Transitional Rail projects at current projected cost and timing, asterisk denoting BC or pre-imp funding already committed: Wiri to Quay park*; Papakura to Pukekohe Electrification*; Rail Network Growth Impact Management (Auckland network upgrades)*; Additional Power feed (Auckland Metro); Auckland Train Control Centre; Pedestrian level crossings; other rail project developments (Wellington Metro) and; other rail project developments (Auckland Metro)"

iii. Public transport

a. **Base** – includes funding for driver meal breaks and; **excludes** green card
b. **Base plus** - in addition to base, this includes forecast service expenditure earmarked for the Hamilton to Auckland trial rail service, and existing bus and ferry service improvements already approved. The proposal does not include costs associated with funding new services or service level increases, nor does it include changes to fare settings coming from possible policy interventions. However, it **has allowed** for the cost of changes to drivers' minimum wages and **includes** green card.

iv. Rapid transit - This proposal relates to likely funding requirements for rapid transit investments (over the next ten years, other than those included in ATAP and LGWM. Therefore, it primarily relates to potential rapid transit investments in Hamilton, Tauranga, Christchurch and Queenstown. If Wellington rail network improvements are to be funded from the rapid transit activity class, they would also need to be considered h re

v. State highway maintenance & improvements –

a. **Maintenance -** For both the Base and Base Plus the same forecast has been used as a pure base case would see a significant deterioration on LoS provided by the State highway network. **See attachment 2** - White Paper on State highway and Asset Management
b. **Improvements – Base** includes some $2.4billion of financ ng costs plus commitments and **base plus** includes base as well as route protection and safety commitments

vi. Local road maintenance & improvements –

a. **Maintenance - only 10 year totals provide here at this time**, we don't currently (yet) have on year by year breakdowns for this activity.
b. **Improvements -** All costs are NLTF share, based on current FARs. The negative values in the base are from the paying back of front-loaded costs (AT predominantly).

Note: AT are currently retendering the first of four network contracts; contractors are indicating AT should expect an uplift of up to 30% in costs – th forecasts provided does not fully account for that. If that uplift happens then an additiona $30m p.a. above forecast is required for AT alone; this may also occur to a lesser or greater with other LG network contracts up or renewal.

vii. Investment Management

a. **Base** – includes committed and essential activities
b. **Base plus** - in addition to base, this includes promised and scalable activities but excludes other activities at thi time.

viii. Road safety promotion & demand management

a. **Base** – nothing included
b. **Base plus** – **includes** National Road Safety Education & Advertising Programme, Local road safety promotion programmes and Alcohol Inte0072lock and vehicle impoundment programmes but **excludes** any forward demand management

ix. Road Policing

a. **Base** – **includes** and assumes a 3% CEA increase; **excludes** any increase in safety cameras
b. **Base plus** – as per Base

x. **Extra funding for NZTA technology** – **Note:** unable to provide any 10-year base or base plus forecast's today; **to be updated** next week

xi. **Cross cutting Issues**

a. **Base** – **Includes** debt commitments and committed OPEX (non prog) and CAPEX (non LCLR). **Excludes** ATAP and LGWM. **Note: unable to provide any 10-year base Road Safety Strategy** forecast's today; **to be updated** next week

b. **Base plus** – in addition to base, **Includes** ATAP - based on assumed level of ATAP affordability and for LGWM – an estimated funding level

c. **Forecast information for base and base plus has not been requested for:** coastal shipping, innovation and mode shift.

Please treat this as a first draft as there has not been time to do a meaningful review of numbers and there are likely to be changes.

Let me know if you require further clarity on the attached and the above.

Regards

Ian

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GPS Freight Priority Workshop

26 September 2019

Assisting MoT in building the GPS

Test full programme and attach $

5

7 October

Optimised Investment Programme

= NEED + balance across AMBITION scenarios

2

26 September

Freight Scenarios

3. **Transformational:** leading the change

2. **Medium:** building momentum for change

1. **Low:** Achieving the right levels of service

3

1 October

Better Travel Options Scenarios

3. **Transformational:** leading the change

2. **Medium:** building momentum for change

1. **Low:** Achieving the right levels of service

4

3 October

Safety Scenarios

3. **Transformational:** leading the change

2. **Medium:** building momentum for change

1. **Low:** Achieving the right levels of service

Levels of Investment

23 September

BASE PLUS

Our Base Plus Case

Keeping pace with growth + customer experience

Levels of NEED

1

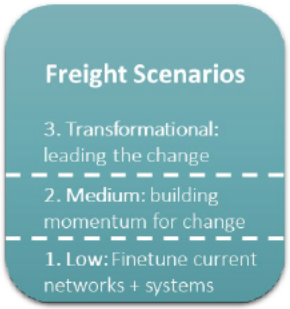
23 September

BASE

Our Base Case

Fiscal commitments and maintain current outputs

= *workshops 1 thru 5*



Workshop 2

Structure	Notes
Purpose of the session -	With the previously defined base case in mind, review and agree how to describe the three thresholds of ambition for the **Governments GPS Freight** priority i.e.: • ***Low investment:*** *achieve the right level of service* • ***Medium investment:*** *building the change* • ***Transformational investment:*** *leading the change* Identify what activities for freight should fit within the three threshold categories Agree next steps ahead of workshop 3 (Government's Sustainable Access GPS priority)
What we get out of today -	*1. Recap of the base case for what we need* *2. Agree on the priority scenario thresholds* *3. For the Freight priority, identify the activities that will fit within each threshold*
How we are going to do it -	1. Welcome (5m) 2. Recap on workshop 1 (15m) 3. Discuss/ refine 3 thresholds (40m) 4. Populate activities for 3 thresholds (30m) 5. Identify who can provide costings (10m) 6. Next steps

Workshop 1

Our Base Case

Defined by: fiscal commitments and maintain current outputs

6 Principles	Notes
1. Meet commitments	• Cost of debt servicing • AND funding approvals up to 3 Oct 19 that authorise expenditure after 1 July 2021 • AND "scrutinise" re-evaluation projects • AND "estimate" likely funding approvals that occur after 3 Oct 19 that will authorise expenditure after 1 July 21 • AND "estimate" likely cost/scope adjustments (est. 20% contingency on commitments) • AND priority projects that may slip (e.g. could accommodate through funding range) like Manawatu Gorge

2. Invest in current outputs	• Doesn't move us forward, but is the least we should do
	• Same level of investment in resilience and availability – keep providing the network we have now (e g. balance of bridge vs alternate route), incl emergency works
	• Keep existing core services (e.g. Same number of bus services, even if crowded; same amount of access through network coverage) *Need to explain downside*
	• Need to show how much choices cost. Safety team can furnish $$
	• Will have a negative impact
	• Poor outcomes in
	  - safety (e.g. no increase in DSIs as result of condition and exposure, but no contribution to reducing DSIs)
	  - "environment" (e.g. mitigation of impacts from new builds, but no remediation)
	  - emissions growth

3. Meet legislative requirements	e.g. Employment Relations Act, HSE Will spend more to achieve no additional benefit
4. Meet increased cost of doing business	e.g. CPI Will spend more to achieve no additional benefit
5. Requirements due to obsoletion	e.g. Light bulbs
6. Keep NZTA ability to implement GPS and support our partners to do the same	e.g. core capability to plan, operate and manage the business

GPS strategic priority for FREIGHT

Scope: urban + regional + impacts for tourism are an important consideration

Desired outcomes/results	Key types of interventions
1. **Well-designed transport corridors with smooth connections support productive economic activity and confidence in New Zealand's transport system** 2. **Doing this is a way that supports** • **Resilience and security:** The likelihood and impact of (man-made (including malicious acts) and natural) disruptive events are reduced for routes that provide economic connectivity to the regions. In addition, routes are managed in a way that supports public and international confidence in New Zealand's transport system to support economic and tourist activity. • **Environmental sustainability**: Freight is supported to move to lower emission modes of transport, such as rail and coastal shipping, where viable. • **Healthy and safe people:** More freight is moved by modes of transport with lower collision risk and reduced emissions contribute to the health of the nation	a) Developing transport connections that are crucial for linking production points with key distribution points (including routes important for exports, and those intra-regional routes critical for getting local goods to market) b) Improving transport connections (including local roads, public transport and active modes) that enable tourists to safely participate in tourism activities c) Managing and responding to resilience risk on important regional roads where disruptions cause the highest economic and social costs. d) Programmes/projects that optimise transport of heavy freight between road, rail and coastal shipping e.g. through multi-modal hubs to support regional industry e) Implement the rail plan to enable a resilient and reliable rail network that supports freight movements in a mode-neutral system. f) Complementing Government investment in regional development eg transport routes supporting aquaculture and Billion Trees growth g) [? Developing and implementing regional plans (covering both proactive and reactive responses) to improve targeting of resilience risk and vulnerabilities in an integrated system-wide approach which can also better recognise interdependencies. This includes resilience planning and management across regional boundaries.]

Investing for levels of investment for freight

Levels of investment	How we should invest?	Freight and Tourism (examples)
1. Low *Achieve the right levels of service* • finetune current networks and systems • Could be relatively low cost, ready to go and quick to do	➢ Investment to improve existing network (infrastructure)	➢ Tourism - complete missing links ➢ Great trails / walks ➢ Connections to townships
	➢ Investment to improve efficiency of existing services (spot locations)	➢ Tourism - road routes ➢ Functional LoS/ consistent
	➢ Invest to support/ encourage right transport choices	➢ Freight – upgrade / fix demand route gaps
		➢ Both – Improve awareness and connectivity on existing routes (SH & LR)
2. Medium *Building momentum for change* • Low level "pull"	➢ Invest to lead change to support priority ➢ No regrets lead infrastructure	➢ Freight – lead improvements (could be SH or LR) to encourage investment
	➢ Invest to improve route(s) for services (route / area specific location)	➢ Tourism - routes e.g. some additional signage, or more toilets
	➢ Invest to incrementally lift base	➢ Both – roll out more resilience on key routes (plan B)
3. Transformational *Leading the change* • Ambitious "pull"	➢ Invest with right conditions (e.g. parking policies, district plan rules)	➢ Freight – multimodal interchanges
	➢ Invest in lead infrastructure and services	➢ Freight – load cells
	➢ Invest for step change i.e. different scenario – e.g. behaviour shift	➢ Tourism + Freight? - super-rest stops (commercial)
	➢ Invest for behaviour shift	➢ Tourism + Freight? Change level of service through towns (support Regional/ Local development)

Workshop 2 LOW investment

Freight Scenarios

3. **Transformational:** leading the change
2. **Medium:** building momentum for change
1. **Low:** Finetune current networks + systems

Investment level	How we should invest
Low: achieving the right levels of service • finetune current networks and systems • Includes relatively low cost, ready to go and quick to do • Particularly in the inter-regional context • Urban context mostly into ports, airports and through hubs NB: coastal shipping probably in another ambition level	• Investment to improve existing network (infrastructure and logistics facilities)
	• Investment to improve operational efficiency of existing services (e.g. traffic signals, operational systems for incident management to re-establish or prioritise for freight movement)
	• Invest to support/ encourage right transport choices through information (e.g. real time info to drive decisions in advance like weather impacts)
	• Invest to improve connections between modes and networks; or inter-operability between modes (e.g. share/separate use of corridor through working with AO or private sector)
	• Close the gap to where safety needs to be to achieve the desired reduction in DSI; and the gap in LoS in environment (e.g. Noise walls, biodiversity tmts)
	• Target interventions to areas based on impact: most intense use, highest safety issues, greatest delays on highest volume routes, highest impact to outages, greatest criticality (e.g. perishables, time sensitivity)
	• Dedicated facilities for freight (i.e. Target to freight, and not have benefits gobbled by private vehicles, e.g. Forestry roads)
	• Build foundation to future "transformation" interventions (e.g. land use)
	• Rail investment halts decline

Workshop 2 MEDIUM investment

Freight Scenarios

3. Transformational: leading the change

2. Medium: building momentum for change

1. Low: Finetune current networks + systems

Investment level	How we should invest
Medium: building momentum for change • Low level "pull"	• Invest to lead change to support priority (no regrets lead infrastructure)
	• Invest to provide a step change for a high impact industry (e.g. logging) or an area, or wide national impact (e.g. FMCG)
	• Invest to incrementally and sustainably lift base across network (e.g. target low speeds limits, speed limited bridges); with first priority in areas (e.g. Northland) – leverage off PGF spend to provide for expectation of BAU growth
	• Improve the levels of service across larger areas cf Low ambition; incl. increasing HPMV areas of acceptability (primarily bridges and culverts)
	• Mode shift from road – e.g. invest in building new inland hubs
	• Address speed issues around schools and severence; community nuisance environment and health concerns (e.g. Sealing local roads); needs to be balanced with travel times/log books/shift hours
	• Make sure spatial planning "markers" are in place to enable more secure investment; purchase land and work with partners to establish facilities where we know there is a win/win or known gaps in the freight network
	• Rail investment lifts LoS to modern standard, including making more safe the top ?% of level crossings

Workshop 2 TRANSFORMATIONAL investment

Freight Scenarios

3. Transformational: leading the change

2. Medium: building momentum for change

1. Low: Finetune current networks + systems

The big change is: more sustainable, more efficient, more multi modal freight system

Investment level	How we should invest
Transformational: leading the change • Ambitious "pull" • Improving multi modal choices (using right tool for the job)	• Partner to deliver previous planning and investments (e.g. Build multimodal hubs)
	• Invest in lead infrastructure and services, including future technology (e.g. driverless trucks, smart logistics, journey tracking)
	• Invest for step change i.e. different scenario (e.g. behaviour shift)
	• Invest for behaviour shift
	• Making safe road/rail (grade separating existing level crossings); separating passenger and freight flows (e.g. Multiple lines)
	• Decarbonise the freight system
	• Relocation of significant ports or creation of new ports; and the substantial land investment to required

Workshop 2 LOW INVESTMENT activities

Freight Scenarios

3. **Transformational:** leading the change
2. **Medium:** building momentum for change
1. **Low:** Finetune current networks + systems

How we should invest	Low Investment Level activities
Investment to improve existing network (infrastructure and logistics facilities)	• Expansion of sealed network and widening shoulders, decreasing edge break
Investment to improve operational efficiency of existing services (e.g. traffic signals, operational systems for incident management to re-establish or prioritise for freight movement)	• LCLR in signals and operations: Big Freight Lens on network optimisation, esp. urban
Invest to support/ encourage right transport choices through information (e.g. real time info to drive decisions in advance like weather impacts)	• More VMS signs etc to link to weather info • TOC improvements • Serving the contestable freight task, starting with understanding more (e.g research) • Logistics planning improvements (e.g. Trials) – maybe through industry partnerships
Invest to improve connections between modes and networks; or inter-operability between modes (e.g. share/separate use of corridor through working with AO or private sector)	• Trials etc from below • Identify key hubs to invest in; trial some traffic control mechanisms vs. expensive infrastructure
Close the gap to where safety needs to be to achieve the desired reduction in DSI; and the gap in LoS in environment (e.g. Noise walls, biodiversity tmts)	• Commit to safe and fuel efficient driving programme (freight and bus) – great benefits • Work on engine braking in urban areas (regulatory tools?); noise remediation • More rumble strips, skid resistance, median strips, roughness treatments • Stocktake of rest areas (esp. long haul routes)
Target interventions to areas based on impact: most intense use, highest safety issues, greatest delays on highest volume routes, highest impact to outages, greatest criticality (e.g. perishables, time sensitivity)	• Build and maintain knowledge base (i.e. fill info gaps on freight flows and load specs) • Resilience to sea level rise programme (road and rail) – existing • The elements of the re-evaluated projects that align with criteria (eg. Whangarei)
Dedicated facilities for freight (i.e. Target to freight, and not have benefits gobbled by private vehicles, e.g. Forestry roads)	• Trialing some dedicated freight routes (e.g. Close lanes to traffic at times of day – e.g. Bus lane to freight lane by time; wide streets with onstreet parking)
Build foundation to future "transformation" interventions (e.g. land use)	
Rail investment halts decline	• What the Rail Investment Package says

Workshop 2 MEDIUM INVESTMENT activities

Freight Scenarios

3. **Transformational:** leading the change

2. **Medium:** building momentum for change

1. **Low:** Finetune current networks + systems

How we should invest	Medium Investment Level activites
Invest to lead change to support priority (no regrets lead infrastructure)	
Invest to provide a step change for a high impact industry (e.g. logging) or an area, or wide national impact (e.g. FMCG)	• Provide smarter information management/advance notice to freight schedulers, less about real time signage to drivers on the journey • FAR for at risk communities and forestry access roads?
Invest to incrementally and sustainably lift base across network (e.g. target low speeds limits, speed limited bridges); with first priority in areas (e.g. Northland) – leverage off PGF spend to provide for expectation of BAU growth	• Reduce duration of outages (e g. Enhanced emergency programmes or kit) • Reduce exposure to sea level rise for most exposed parts of the strategic freight network • Widen roads on main routes where only one way freight is possible (e.g. Bullies Point Taupo) • Investing in appropriate snow and ice plant for gaps on network e.g. the three Sisters area
Improve the levels of service across larger areas cf Low ambition; incl. increasing HPMV areas of acceptability (primarily bridges and culverts)	• Bridge improvements/renewals to support HPMVs (possibly by targeted FAR on some LR networks) • More extensive parts of re-evaluated State Highway projects that deliver significant freight efficiency benefits. • Simple low cost crawler lanes (e.g. agricultural and horticultural use) – not high cost passing lanes • One Network route reliability lifeline plans that should include…investing in local road (pavement, structure, turning at intersections) improvements where can significantly improve/shorten temporary bypasses/detours if roads closed
Mode shift from road – e.g. invest in building new inland hubs	• Integrated land use and transport planning inland hubs/intermodal connections (e.g. Palmerston North to Ta Ahu a Turanga) • Invest in road to open up rail where that provides better travel choice, better uses existing assets, supports desired settlement pattern and trip distribution (e.g. Rolleston for rail to Lyttleton)
Address speed issues around schools and severence; community nuisance environment and health concerns (e.g. Sealing local roads); needs to be balanced with travel times/log books/shift hours	• Rerouting to address severance; • Traffic calming/speed reductions for rural schools, urban arterials, residential [Safety Team has the numbers] [Some of this may be in the low programme?) • More extensive noise walls programmes. • Road sealing for routes above x daily heavy vehicle movements
Make sure spatial planning "markers" are in place to enable more secure investment; purchase land and work with partners to establish facilities where we know there is a win/win or known gaps in the freight network	• Integrated land use and transport planning inland hubs/intermodal connections and where appropriate urban bypasses • Strategic land purchase to get right settlement pattern, particularly that industrial land well utilised
Rail investment lifts LoS to modern standard, including making more safe the top ?% of level crossings	• Grade separation for high risk level crossings • Higher level of investment in Auckland rail network track renewals/resilience. • Continual improvement to address slow speed sections of the rail network

Workshop 2 TRANSFORMATIONAL activities

Freight Scenarios

3. **Transformational:** leading the change

2. **Medium:** building momentum for change

1. **Low:** Finetune current networks + systems

How we should invest	TRANSFORMATIONAL Investment activities
• Partner to deliver previous planning and investments	• Build multimodal hubs, esp. Where there is less opportunity / push/pull to move mode
• Invest in lead infrastructure and services, including future technology and risk/resilience issues	• e.g. driverless trucks, smart logistics, journey tracking • Pontoons in Wtgn harbour, make more low risk freight corridors (e.g. strengthen system or provide redundancies)
• Invest for behaviour shift	• Pricing to favour desirable patterns (e.g. not accessing port @ peak times) • Pricing to encourage heavy freight on rail cf road. Use spare capacity in urban areas
• Making safe road/rail; separating passenger and freight flows	• grade separating existing level crossings, multiple lines • When investing in big SH projects, look to how we make more safe for pax/freight co-use • 4th track in Akld, 3rd sth of Wiri • Bring forward some re-evaluated projects with freight benefits that wouldn't otherwise proceed at this time • Double track hard bits of Wtgn rail (e.g. Kapiti) • Dedicated access to airports
• Decarbonise the freight system	• Investing in electric/low emission trucks, esp. in urban areas • Electrifying more of the rail network • Bring forward purchase of electric locomotives • Provision of land for charging infrastructuire and co-location with hubs and rest areas + regs as required (could be hydrogen, biofuel)
• Relocation of significant ports or creation of new ports; and the substantial land investment to required	

From: Ian Duncan <Ian.Duncan@nzta.govt.nz>
Sent: Monday, 30 September 2019 5:25 pm
To: Matthew Skinner
Cc: John.Coulter; Barbara Tebbs; Brigit Stephenson; Brett Gliddon; Rachael Lowe; Michelle Lou
Subject: RE: Draft base and base plus 2021/30 forecasts
Attachments: Attachment 1 v2 _WIP 'base' and 'base plus' activity class forecasts for 2021_2030 GPS.xlsx

Hi Matt,

Sorry I hoped to have this to you earlier in the day.

This is a further breakdown for the base and base plus activity classes. I must stress at this point this should be considered only a working best current estimate, as we have not yet had time to review the data behind these figures.

Re you other questions from Friday

- What is the cross-cutting issues section supposed to show?
- *The cross-cutting rows contains activities which, cut across a number of other activity classes and/or GPS priorities*
    - The numbers under each of the items don't make much sense to me.
    - *We discuss the PPP in the question below, as we do for ATAP and LGWM... the environmental allocation is to meet a 6 year noise remediation programme across our n two k in locations where we know we are not currently meeting our requirements.*
    - What is included in here, and why is some (e.g. PPP repayments) included in the activity classes, but the spend under meeting debt repayments included here instead of in the relevant activity class it would be repaid from?
    - *PPP repayments are all listed in the cross-cutting issues area...more so to daylight we have work already done or underway that has a debt repayment component and what the extent of that component is.*
    - And why would base+ be higher for debt commitments — surely as a debt commitment there is no flexibility?
    - *Valid point we are going to check these again...they seem a bit low as well!*
- I thought we had decided not to include ATAP in Base or Base+, except for things that actually fit in there, in which case they shouldn't need to be singled out as they should be part of national assumptions (e.g. for maintenance)?
- *Nothing for either in Base but a limited amount in Base Plus to take some of their contribution to managing growth*
- I don't understand why we would have walking and cycling in the base? Unless those are all approved projects?
- *I agree, there will be some committed projects carrying over but those won't go for the full 10 years...I think when we get onto the 'better travel options – people' priority we will chase a fare bit of this out of the base. I'm going to check with our walking and cycle team on this is the morning and get back to you so that we can adjust the base sooner if it warranted.*

Best regards

Ian

Ian Duncan / Chief Advisor
Chief Executive's Office

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Withheld under section 9(2)(a) of the Official Information Act

Waka Kotahi NZ Transport Agency
Dunedin / Level 2, AA Centre, 450 Moray Place
PO Box 5245, Moray Place, Dunedin 9058, New Zealand

From: Matthew Skinner <m.skinner@transport.govt.nz>
Sent: Monday, 30 September 2019 3:02 PM
To: Ian Duncan <Ian.Duncan@nzta.govt.nz>
Cc: John Coulter <John.Coulter@nzta.govt.nz>; Barbara Tebbs <Barbara.Tebbs@nzta.govt.nz>; Brigit Stephenson <Brigit.Stephenson@nzta.govt.nz>; Brett Gliddon <Brett.Gliddon@nzta.govt.nz>; Rachael Lowe <R.Lowe@transport.govt.nz>
Subject: RE: Draft base and base plus 2021/30 forecasts

Hi Ian,

Just wondering if you've had any luck in breaking the numbers down further? The key thing here is being able to give the Minister some oversight on the "why?" so that he understands the logic for setting the levels that we propose.

Going back to the original request, which we haven't moved on from, he said that he wants to understand the activities and choices that make up each activity class, along with the assumptions for how much they will cost over 10 years, to allow for clear decision making and trade-offs in setting the activity classes. To do this, we need to be able to give more than just a single number for each activity class, because as we've gathered over the past few months that we've been discussing this, there are a lot of assumptions behind these numbers that the Minister should be aware of.

Thanks,
Matt

Matt Skinner
Senior Adviser
Ministry of Transport – Te Manatū Waka

M: [redacted] | www.transport.govt.nz

Withheld under section 9(2)(a) of the Official Information Act

Enabling New Zealanders to flourish

From: Ian Duncan <Ian.Duncan@nzta.govt.nz>
Sent: Friday, 27 September 2019 6:02 PM
To: Matthew Skinner <m.skinner@transport.govt.nz>
Cc: John Coulter <John.Coulter@nzta.govt.nz>; Barbara Tebbs <Barbara.Tebbs@nzta.govt.nz>; Brigit Stephenson <Brigit.Stephenson@nzta.govt.nz>; Brett Gliddon <Brett.Gliddon@nzta.govt.nz>
Subject: Re: Draft base and base plus 2021/30 forecasts

Hi Matt,

I'll get onto this first thing Monday. We should be able to answer your questions and break the activity classes a bit further.

Ian

Get Outlook for iOS

From: Matthew Skinner <m.skinner@transport.govt.nz>
Sent: Friday, September 27, 2019 5:47:28 PM
To: Ian Duncan <Ian.Duncan@nzta.govt.nz>
Cc: John Coulter <John.Coulter@nzta.govt.nz>; Barbara Tebbs <Barbara.Tebbs@nzta.govt.nz>; Brigit Stephenson <Brigit.Stephenson@nzta.govt.nz>; Brett Gliddon <Brett.Gliddon@nzta.govt.nz>
Subject: RE: Draft base and base plus 2021/30 forecasts

Hi Ian,

Thanks for sending this through.

Can you please provide the inputs that feed into attachment 1? The point of this exercise is so that we can understand the different items that contribute towards the costs in each activity class. The info below is a good start towards understanding that, but just providing a single number for each activity class provides no assurance to the Minister that these are the right levels at which the activity class must be set. I still want to be able to do something similar to what I initially proposed, which I think I should be able to do if you provid me a further breakdown of the activity classes.

I have a few other questions (which might answer themselves with the breakdown of the data):

- What is the cross-cutting issues section supposed to show? The numbers under each of the items don't make much sense to me. What is included in here, and why is some (eg PPP repayments) included in the activity classes, but the spend under meeting debt repayments included here nstead of in the relevant activity class it would be repaid from? And why would base be higher for debt commitments — surely as a debt commitment there is no flexibility?
- I thought we had decided not to include ATAP in Base or Base+, except for things that actually fit in there, in which case they shouldn't need to be singled out as they sh uld be part of national assumptions (eg for maintenance)?
- I don't understand why we would have walking and cycling in he base? Unless those are all approved projects?

Thanks,
Matt

From: Ian Duncan <Ian.Duncan@nzta.govt.nz>
Sent: Friday, 27 September 2019 5:09 PM
To: Matthew Skinner <m.skinner@transport.govt.nz>
Cc: John Coulter <John.Coulter@nzta.govt.nz>; Barbara Tebbs <Barbara.Tebbs@nzta.govt.nz>; Brigit Stephenson <Brigit.Stephenson@nzta.govt.nz>; Brett Gliddon <Brett.Gliddon@nzta.govt.nz>
Subject: Draft base and base plus 2021/30 forecasts

Matt,

This afternoon, we are providing you with the following attachments:

1. **Attachment 1** - work in progress (WIP) 'base' and 'base plus' activity class forecasts for the 2021/30 GPS.
2. **Attachm nt 2 – DRAFT White paper on SH Maintenance whitepaper 27 September 2019**, sets out the rational for the base plus case. **Note:** (i) this is a **draft**; and will continue to be refined; (ii) reviewed by our investment team is required.

Note (Attachment 1):

- *'base'* is defined as maintaining current outputs (ideally with CPI, not confirmed for all activity classes) and contractual commitments. This does not account for growth in vkt, patronage, sea-level rise etc.
- *'base plus'* is defined as maintaining the current service level going forwards (but no more) so it does account for additional costs re providing for increased heavy vkt in terms of pavement maintenance and maintaining existing LoS (but no better) in regard to e.g. passenger provision for projected growth and contractual commitments
- Given the time constraints on this work, these forecast costs should be considered rough order, we will be able to provide better refinement over time.

There are a number of caveats to the provided to the WIP base and base plus (Attachment 1). They are as follows:

i. **Walking & cycling - This proposal excludes** known ATAP and LGWM projects, which includes Sea Path, Auckland Harbour Bridge shared path, and Petone to Ngauranga.

ii. **Rail**

a. **Base** - the two projects included in the base cost (i.e. we've allocated implementation funding): Wellington metro catch up renewals and Wellington metro capacity improvements"
b. **Base plus** – in addition to base, this consists of the identified Transitional Rail projects at current projected cost and timing, asterisk denoting BC or pre-imp funding already committed: Wiri to Quay park*; Papakura to Pukekohe Electrification*; Rail Network Growth Impact Management (Auckland network upgrades)*; Additional Power feed (Auckland Metro); Auckland Train Control Centre; Pedestrian level crossings; other rail project developments (Wellington Metro) and; other rail project developments (Auckland Metro)"

iii. **Public transport**

a. **Base** – includes funding for driver meal breaks and; **excludes** green card
b. **Base plus** - in addition to base, this includes forecast service expenditure earmarked for the Hamilton to Auckland trial rail service, and existing bus and ferry service improvements already approved. The proposal does not include costs associated with funding new services or service level increases, nor does it include changes to fare settings coming from possible policy interventions. However, it **has allowed** for the cost of changes to drivers' minimum wages and **includes** green card.

iv. **Rapid transit -** This proposal relates to likely funding requirements for rapid transit investments (over the next ten years, other than those included in ATAP and LGWM. Therefore, it primarily relates to potential rapid transit investments in Hamilton, Tauranga, Christchurch and Queenstown. If Wellington rail network improvements are to be funded from the rapid transit activity class, they would also need to be considered here.

v. **State highway maintenance & improvements** –

a. **Maintenance -** For both the Base and Base Plus the same forecast has been used as a pure base case would see a significant deterioration on LoS provided by the State highway network. **See attachment 2** - White Paper on State highway and Asset Management
b. **Improvements – Base** includes some $2.4billion of financing costs plus commitments and **base plus** includes base as well as route protection and safety commitments.

vi. **Local road maintenance & improvement**

a. **Maintenance - only 10-year totals provide here at this time**, we don't currently (yet) have on year by year breakdowns for this activity.
b. **Improvements -** All costs are NLTF share, based on current FARs. The negative values in the base are from the paying back of front-loaded costs (AT predominantly).

Note: AT are currently retendering the first of four network contracts; contractors are indicating AT should expect an uplift of up to 30% in costs – the forecasts provided does not fully account for that. If that uplift happens then an additional $30m p.a. above forecast is required for AT alone; this may also occur to a lesser or greater with other LG network contracts up for renewal.

vii. **Investment Management**

a. **Base** – includes committed and essential activities
b. **Base plus** - in addition to base, this includes promised and scalable activities but excludes other activities at this time.

viii. **Road safety promotion & demand management**

a. **Base** – nothing included
b. **Base plus** – **includes** National Road Safety Education & Advertising Programme, Local road safety promotion programmes and Alcohol Interlock and vehicle impoundment programmes but **excludes** any forward demand management

ix. **Road Policing**

a. **Base** – **includes** and assumes a 3% CEA increase; **excludes** any increase in safety cameras

b. **Base plus** – as per Base

x. **Extra funding for NZTA technology** – **Note:** unable to provide any 10-year base or base plus forecast's today; **to be updated** next week

xi. **Cross cutting Issues**

a. **Base** – **Includes** debt commitments and committed OPEX (non prog) and CAPEX (non LCLR). **Excludes** ATAP and LGWM. **Note: unable to provide any 10-year base Road Safety Strategy** forecast's today; **to be updated** next week

b. **Base plus** – in addition to base, **Includes** ATAP - based on assumed level of ATAP affordability and for LGWM – an estimated funding level

c. **Forecast information for base and base plus has not been requested for:** coastal shipping, innovation and mode shift.

Please treat this as a first draft as there has not been time to do a meaningful review of numbers and there are likely to be changes.

Let me know if you require further clarity on the attached and the above.

Regards

Ian

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Summary of costs indicated in draft funding proposals

Activity class	BASE 21/22 $M	22/23 $M	23/24 $M	24/25 $M	25/26 $M	26/27 $M	27/28 $M	28/29 $M	29/30 $M	30/31 $M	Rolled up $M	TOTAL $M	BASE PLUS 21/22 $M	22/23 $M	23/24 $M	24/25 $M	25/26 $M	26/27 $M	27/28 $M	28/29 $M	29/30 $M	30/31 $M	Rolled up $M	TOTAL $M
Walking and cycling	165.63	147.14	140.89	93.06	92.15	83.55	85.77	88.05	90.4	117.2	0	1103.84	195.63	177.14	170.89	123.06	122.15	113.55	115.77	118.05	120.4	147.2	0	1403.84
#20 Delivering known projects	165.63	147.14	140.89	93.06	92.15	83.55	85.77	88.05	90.4	117.2	0		195.63	177.14	170.89	123.06	122.15	113.55	115.77	118.05	120.4	147.2	0	
#21 Council forward programmes	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
Rail	181.30	157.62	132.21	129.91	129.89	129.25	129.47	4.69	4.92	5.17	0	1004.44	509.93	392.26	182.99	129.91	129.89	129.25	129.47	4.69	4.92	5.17	0	1618.49
#46 Existing transitional rail	52.85	29.14	3.54	1.05	0.84	0.00	0.00	0.00	0.00	0.00	0		381.48	263.78	54.32	1.05	0.84	0.00	0.00	0.00	0.00	0.00	0	
#47 Future of Rail funding	125.00	125.00	125.00	125.00	125.00	125.00	125.00	0.00	0.00	0.00	0		125.00	125.00	125.00	125.00	125.00	125.00	125.00	0.00	0.00	0.00	0	
#48 Hamilton to Auckland rail - improved infrastructure	3.45	3.48	3.67	3.86	4.05	4.25	4.47	4.69	4.92	5.17	0		3.45	3.48	3.67	3.86	4.05	4.25	4.47	4.69	4.92	5.17	0	
Public transport	402.93	415.02	427.47	400.29	453.5	467.1	481.12	495.55	510.42	525.73	0	4579.13	510.34	529.84	550.73	567.25	584.27	601.79	619.85	638.44	657.60	677.33	0	5937.44
#12 Current service levels	402.93	415.02	427.47	400.29	453.5	467.1	481.12	495.55	510.42	525.73	0		453.93	467.55	481.57	496.02	510.90	526.23	542.01	558.27	575.02	592.27	0	
#14 Ongoing LCLR programme service improvements	0	0	0	0	0	0	0	0	0	0	0		22.08	22.75	23.43	24.13	24.86	25.60	26.37	27.16	27.98	28.81	0	
#15 Infrastructure investment	0	0	0	0	0	0	0	0	0	0	0		34.33	39.55	45.73	47.10	48.51	49.97	51.47	53.01	54.60	56.24	0	
#16 Reduce PT fares	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
#13 Living wage for bus drivers	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
#17 Super Gold Card	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
#10 Green Transport Card	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
Rapid transit	2	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2
#19 Rapid transit outside ATAP and LGWM	2	0	0	0	0	0	0	0	0	0	0		2	0	0	0	0	0	0	0	0	0	0	
State highway maintenance and improvements	1611.82	1471.19	1447.95	1406.73	1339.27	1368.17	1399.11	1452.23	1492.07	1541.79	0	14530.32	18 4.20	1737.98	1626.21	1567.42	1437.57	1608.83	1634.93	1671.68	1695.54	1657.06	0	16451.42
#35 Maintenance programme	845.16	867.56	888.28	927.69	962.98	1007.06	1048.89	1095.54	1133.45	1181.19	0		845.16	867.56	888.28	927.69	962.98	1007.06	1048.89	1095.54	1133.45	1181.19	0	
#36 Operations programme	766.66	603.63	559.66	479.05	376.29	361.11	350.22	356.69	358.62	360.60	0		969.04	870.42	737.93	639.73	474.59	601.78	586.04	576.14	562.09	475.88	0	
#37 Renewals programme	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
#38 Emergency works	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
#28 Imperatives	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
#29 Ongoing LCLR programme	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
#30 Re-evaluated projects	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
#31 Other state highway projects	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
Local roads maintenance and improvements	46.6	2.5	-4.9	-5.1	-5.1	-5.1	-3.8	12.1	37.7	41.7	7855	7971.6	442	425	360	375	387	414	414	446	461	480	8190	12394
#39 Maintenance programme	0	0	0	0	0	0	0	0	0	0	7 55		0	0	0	0	0	0	0	0	0	0	8190	
#40 Operations programme	46.6	2.5	-4.9	-5.1	-5.1	-5.1	-3.8	12.1	37.7	41.	0		442	425	360	375	387	414	414	446	461	480	0	
#41 Renewals programme	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
#42 Emergency works	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
#23 Ongoing LCLR programme	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
#24 Council forward programmes	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
Investment management	56.57	55.70	56.74	60.10	59.03	60.28	63.70	62 67	63.92	67.59	0	606.31	89.52	91.17	92.72	94.39	96.06	97.85	99.54	101.36	103.18	105.01	0	970.80
#43 IFAS	49.78	50.83	51.78	52.82	53.87	55.01	56.05	57.19	58.33	59.47	0		52.40	53.50	54.50	55.60	56.70	57.90	59.00	60.20	61.40	62.60	0	
#44 Research programme	3.29	1.30	1.33	3.56	1.38	1.41	3.71	1.46	49	3.93	0		5.62	5.74	5.85	5.97	6.09	6.21	6.33	6.46	6.59	6.72	0	
#44a Improving the Transport Evidence base	0	0	0	0	0	0	0	0	0	0	0		10	10	10	10	10	10	10	10	10	10	0	
#45 Transport planning	3.50	3.57	3.64	3.71	3.79	3.86	3.94	4.02	4.10	4.18	0		21.50	21.93	22.37	22.82	23.27	23.74	24.21	24.70	25.19	25.69	0	
Road safety promotion and demand management	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	615.5	615.5
#33 Forward road safety promotion	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	424.1	
	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	171.9	
	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	19.5	
#34 Forward demand management	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
Road policing	0	0	0	0	0	0	0	0	0	0	4697	4697	0	0	0	0	0	0	0	0	0	0	4697	4697
#32 GPS 2021 proposed levels	0	0	0	0	0	0	0	0	0	0	4697		0	0	0	0	0	0	0	0	0	0	4697	
Extra funding for NZTA technology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#49 Increased funding for major technology-enabled change (customer-facing systems)	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
Cross-cutting issues																								
#1 Meeting debt commitments	29.39	32.39	47.39	50.38	47.39	27.39	27.38	35.38	27.38	27.38	0	351.85	33.39	39.39	69.39	75.38	69.39	29.39	29.38	45.38	29.38	29.38	0	449.85
#2 Estimated costs of completing approved investment??	25.30	4.33	3.19	2.18	0.37	0	0	0	0	0	0	35.37	25.30	4.33	3.19	2.18	3.66	0	0	0	0	0	0	38.66
# 3 ATAP	0	0	0	0	0	0	0	0	0	0	0	0.00	180	180	180	180	180	180	180	180	180	180	0	1800
#4 LGWM	0	0	0	0	0	0	0	0	0	0	0	0.00	64.26	42.10	50.10	21.90	0	0	0	0	0	0	0	178.36
#5 Road Safety Strategy	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0
#5.5 Safety Cameras	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0
#6 Mode shift	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0
#7 Coastal shipping	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0
#8 Innovation	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0
#9a Resilience	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#11 Increased environmental support	25	25	25	25	25	25	0	0	0	0	0	150	25	25	25	25	25	25	0	0	0	0	0	150