



*Western Corridor Transportation Study*

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**SKM**

*achieve > remarkable > success*

## *Western Corridor transportation study area*



# Context

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- > Many studies before
- > Little progress
  - o funding shortage
  - o short term focus
  - o lack of political agreement
- > Previous environment
  - o singular primacy of cost-benefit

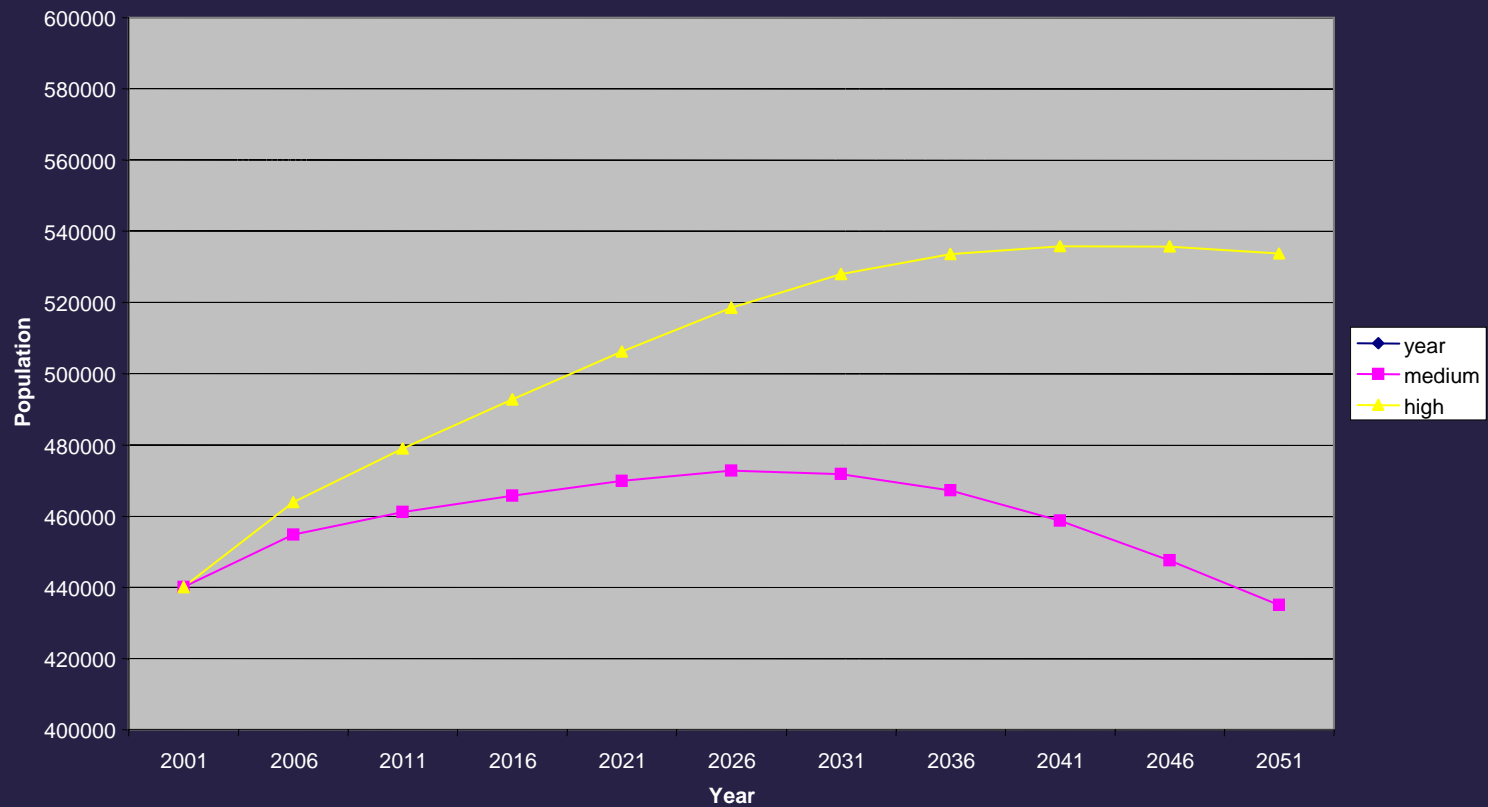
# Context

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- > Land Transport Management Act
  - o multiple objective
  - o integration (modes, land use)
  - o onerous consultation requirements

# Population growth in Wellington region

Population Growth



## *Demographic context*

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- > Modest population growth forecast
- > Population expected to peak and decline (30 to 40 years out)
  - o is expensive road investment justifiable?
  - o will expensive road capacity be surplus to requirements?

# *Demographic context*

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- > Aging population
  - o less emphasis on peak commuting
- > Has TDM an important roll in managing future
  - o peak demand?
  - o peak daily demand?
  - o peak future demand?

# *Demographic context*

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- > Land use policies important
- > PT provision
- > Demographics only part of growth picture
  - o employment
  - o freight

# *Objectives*

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NZTS national objectives



RLTS regional objectives

# *Objectives*

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- > Assist economic and regional development
- > Assist safety and personal security
- > Improve access, mobility and network reliability
- > Protect and promote public health

# *Objectives*

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- > Ensure environmental sustainability
- > Consider economic efficiency and affordability

# *Study performance indicators*

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## 1. Economic and regional development

- o average multi-modal user cost (time, vehicle operating costs etc)
- o average road freight user cost
- o changes to GDP

## 2. Safety and personal security

- o economic cost of crashes
- o personal security

# *Study performance indicators*

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3. Access, mobility and network reliability
  - o multi modal accessibility and integration
  - o reliability of travel time for road
  - o network resilience for road and rail
  - o mode option choice

# *Study performance indicators*

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## 4. Public health

- o air quality
- o noise
- o active travel
- o community severance and related effects
- o community displacement, construction disruption
- o crashes

# *Study performance indicators*

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## 5. Environmental sustainability

- o iwi values
- o greenhouse gases
- o indigenous habitats
- o significant ecosystems
- o landscape and visual including recreational values
- o archaeology and heritage

# *Study performance indicators*

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6. Economic efficiency and affordability
  - o affordability
  - o economic efficiency

# *Planning balance sheet*

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- > Enables different packages to be compared
  - o disaggregated by objective
  - o aggregated overall
  - o different emphasis/perspectives considered
- > Each sub-objective scored – 10 point, 5 neutral (base case)

# *Planning balance sheet*

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- > Sub-objectives aggregated to objective score
- > Objectives aggregated to overall score
- > Mix of quantitative modelled outputs
- > Mix of qualitative expert assessments

# Scenarios

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- > Passenger transport and TDM
- > Major roads
- > Improved reliability
- > Congestion relief
- > Project efficiency

## *Planning balance sheet for the five scenarios*

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Scenario/Objective	Econom & reg develop	Safety & security	Access, mobility reliability	Public health	Environ sustain	Efficiency affordability
PT & TDM	5.2	5.8	5.4	5.0	4.5	5.6
Roads	6.6	7.1	7.5	6.2	4.9	2.8
Improve reliability	6.6	7.3	7.7	5.3	4.2	3.8
Congestion relief	6.0	4.3	6.6	4.5	4.2	5.2
Project efficiency	5.9	4.6	5.8	4.9	4.5	5.8

# Weightings

Objective/Group	Political decision makers	Government officials	Business interests	Environmental & public transport interests
Economic and regional development	19	20	25	20
Safety and personal security	14	20	13	20
Access, mobility and network reliability	16	20	15	20
Public health	11	20	10	20
Environmental sustainability	16	20	15	20
Economic efficiency and affordability	24	Consider separately	22	-

Environmental and public transport interests sought changes to some of the environmental sub-objectives

## *Aggregated planning balance sheet scores*

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Scenario/Interestgroups	Political decision makers	Government officials	Business interests	Environmental & public transport interests
PT and TDM	5.3	5.2	5.3	5.2
Major roads	5.6	6.5	5.7	6.5
Improved reliability	5.7	6.2	5.7	6.2
Congestion relief	5.2	5.1	5.3	5.1
Project efficiency	5.4	5.2	5.4	5.2

# *Risk analysis*

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- > Multi dimensional question – construction, political, planning etc
- > Measure of likelihood
- > Measure of consequence
- > Expert assessment

## Overall summary of scenario performance

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Scenario	Regional benefits	Expected capital costs	PBS political	PBS officials	Risk
PT & TDM	Low	\$410m	5.3	5.2	Moderate
Major roads	High	\$2050m	5.6	6.5	Very high
Improved reliability	High	\$1760m	5.7	6.2	Extremely high
Congestion relief	Medium	\$1070m	5.2	5.1	Very high
Project efficiency	Medium	\$950m	5.4	5.2	Very high

## Overall summary of scenario performance

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Scenario	Safety	Reliability	Congestion & level of service	Mode share (car, rail, bus)	TDM required
PT & TDM	Neutral	✓	xx	62:31:6	Strong
Major roads	✓✓	✓	✓	66:26:7	-
Improved reliability	✓✓	✓✓	Neutral	63:29:8	Light
Congestion relief	✓	Neutral	Neutral	66:27:7	Light
Project efficiency	✓	Neutral	X	62:30:7	Light

# Some Observations

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- > Process became political because of TG v Coastal Route : rest of package attracted little media interest
- > Minor interest shown by the public in first 2 phases of consultation : 3<sup>rd</sup> phase with tangible projects generated many submissions
- > Lack of understanding by public & local politicians on consultation : seen as a referendum & opportunity for political speech making – technical information irrelevant!!
- > Public did not comprehend strategic nature well : wanted detailed alignments & designs – led to frustration & suspicion
- > Tension over individual impacts v wider community good
- > Managing public expectations difficult : view that Govt. should fund irrespective of cost
- > Difficult to communicate technical information : expected cost, risk adjusted cost, rate funded borrowing, multiple objective decisions

# Conclusions

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- > Useful techniques used for bringing disparate information together
- > Disaggregate information by objectives
- > Aggregated objectives
- > Different emphasis/perspectives considered
- > Useful tools
- > More work required to make consultation beneficial
- > But has NZ's legislative changes brought fundamental change?