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Figure 4.1 - Option Cost Breakdown

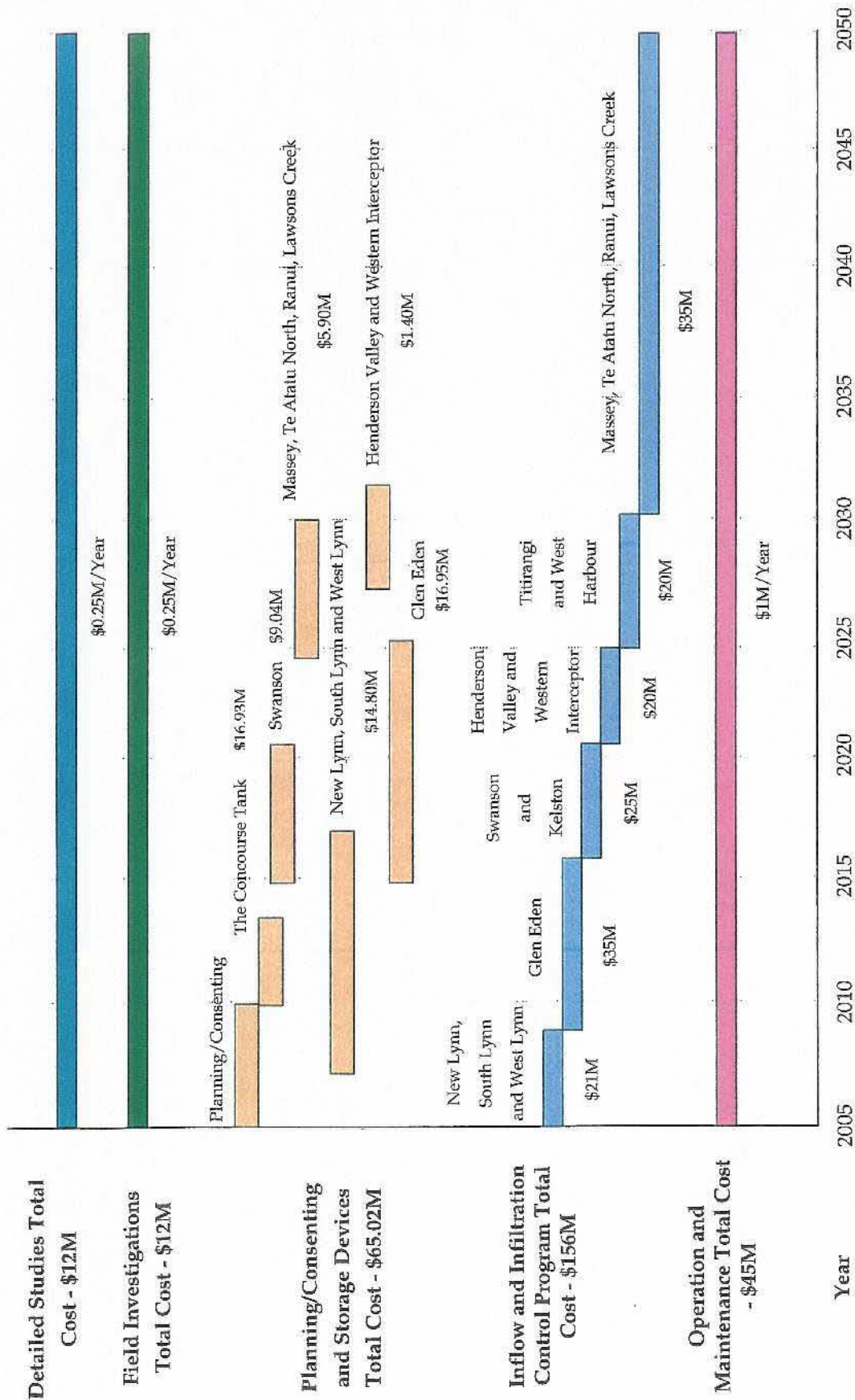


Figure (b) - 50-Year Wastewater Plan

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Waitakere Wastewater Options QBL Assessment

Category	New Pipeline to Kelston	Glen Eden Tunnel Diversion	I/I Control	Concourse and Duplication of PS25	Duplication of Major Trunk Sewers	Project Boost	Rationalisation of Storage Tanks	Rationalised Wet Weather Treatment	Measure	Rating
										1 2 3 4 5
<b>Social</b>										
Time to implement	2	2	1	2	2	2	2	2	Years	30-50 20-30 10-20 5-10 0-5
Short term benefits	4	3	1	2	2	2	3	2	Level	None Minor Moderate High Very High
Long term benefits	2	2	3	3	4	3	5	5	Level	None Minor Moderate High Very High
Short term public disruption	1	1	1	2	1	3	3	3	Level	Very High High Moderate Minor None
Long term public disruption	2	2	1	2	3	2	2	1	Level	Very High High Moderate Minor None
<b>Economic</b>										
Construction Cost	3	2	1	3	1	3	5	1	\$M	>90 81-90 71-80 61-70 51-60
Operation/maintenance Cost	3	2	3	2	3	2	3	2	Level	Very High High Moderate Very little None
Technical feasibility	3	3	3	4	2	4	5	2	Level	No Very little Some High Very high
Flexibility	2	2	2	4	3	3	4	4	Level	None Minor Moderate High Very high
Consentability	3	4	4	3	2	3	2	1	Level	Very High High Moderate Minor None
Operational difficulties	4	3	3	4	4	3	4	2	Level	Very High High Moderate Minor None
Investigations/ survey requirements	2	2	1	2	2	2	2	2	Type	Very detail Detail Very difficult
Possibility of Phasing	3	3	4	4	3	4	5	5	Possibility	Impossible Very difficult
<b>Environmental</b>										
Receiving environmental (Risk)	4	3	4	3	4	3	3	2	Risk	Very high High Moderate Minor None
Achieving trigger standards	4	4	4	4	4	4	4	4	Percent	0-25 25-50 50-75 75-90 90-100
<b>Cultural</b>										
Impact on specific culture/environment sensitive sites	3	3	3	3	3	3	3	2	Number	Very high High Moderate Minor None
Public nuisance/ Community acceptance	4	3	1	3	2	2	2	2	Level	Very high High Moderate Minor None
<b>Total</b>	49	44	40	50	45	48	57	42		

Notes:

Benefit assessment of option includes use of storage/wet weather treatment and I/I Control in addition to the City-wide option  
Rationalisation of storage tanks includes The Concourse storage tank  
Short term benefit category refers to the citywide option  
Long term benefit category refers to the complete option including I/I and storages  
Construction cost includes cost for complete solution - Citywide plus storage/ wet weather treatment I/I control

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