

Walls ACMP Summary

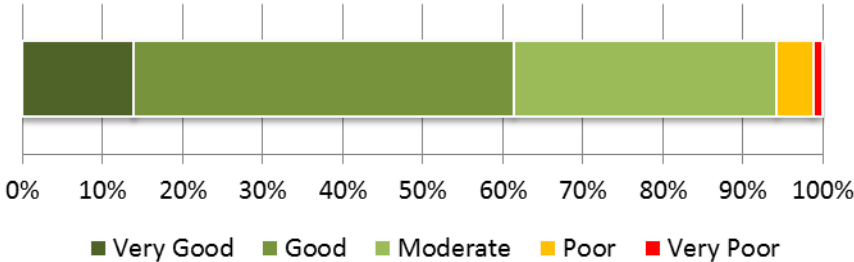
Network overview

Retaining walls:	3,553
Sea walls:	172
Noise walls:	10
Total	3,735

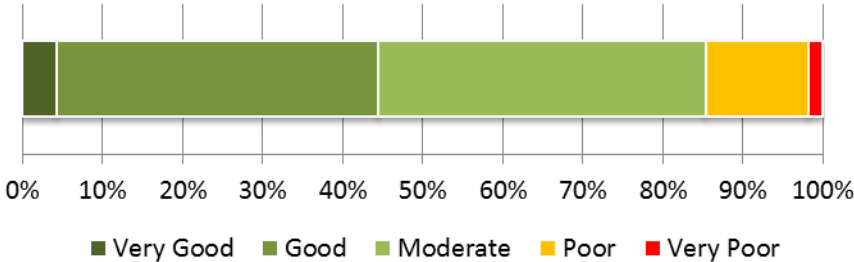
	Current value	Replacement cost
Retaining walls	\$192 million	\$137 million
Sea walls	\$110 million	\$48 million
Noise walls	TBC	TBC

Condition profile

(All) Condition Profile: Walls - Retaining walls (Unit)



(All) Condition Profile: Walls - Sea walls (Unit)



Asset data status	Walls
Age data	Unreliable
Condition data	Reliable



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Levels of service

Outcome	Network is of a suitable quality		
LOS statement	Retaining and sea walls are maintained in a suitable condition		
Performance measure	Current performance	Target performance	Target date
Urgent responses to defects happen within one day	TBC	100%	2018
Emergency responses are carried out within one hour	TBC	100%	2018
Graffiti is removed within one week of the contractor becoming aware	TBC	100%	2018
Offensive graffiti is removed within one day of the contractor becoming aware	TBC	100%	2018

Outcome	Safe network		
LOS statement	Minimise pedestrian injuries		
Performance measure	Current performance	Target performance	Target date
Retaining and sea walls and noise walls are stable.	TBC	≤ 5% of all walls are leaning by 10° to the vertical	TBC
Percentage of handrails firmly anchored to the retaining wall.	TBC	No more than 10 handrails need to be re-secured	TBC

Outcome	Sustainable network		
LOS statement	No wall is allowed to fail before reaching the end of its expected service life		
Performance measure	Current performance	Target performance	Target date
No wall is allowed to fail before reaching the end of its expected service life.	Zero walls fail before they reach the limit of their design or service life	Zero walls fail before they reach the limit of their design or service life	2018

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Outcome	Network is of suitable quality		
LOS statement	Assets are maintained in good condition		
Performance measure	Current Performance	Target Performance	Date
Percentage of walls in an acceptable (condition grade 1, 2 or 3)	82% in condition grade 1,2 or3 (2014)	95% in condition grade 1, 2 or 3	2018

Current (2015) backlog

Backlog: The financial value (quantity %) of assets in “very poor” condition.

Retaining Walls	\$1,706,646.00	1%
Sea Walls	\$1,175,017.89	2%

Strategic approach

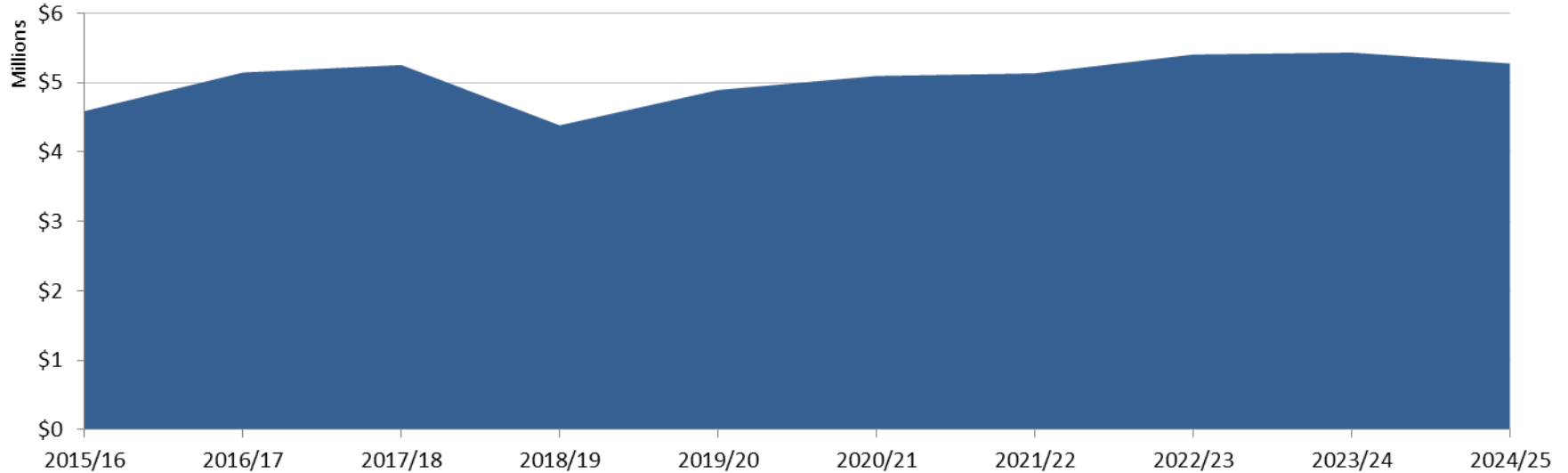
- Assets renewed promptly when classified level 5 ‘very poor’.
- Maintenance carried out at the most optimum time in the asset lifecycle.

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Renewal and Maintenance Costs (\$M)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	10-year total
Approved LTP Renewals (uninflated)		\$4.6	\$5.1	\$5.3	\$4.4	\$4.9	\$5.1	\$5.1	\$5.4	\$5.4	\$5.3	\$50.6
Renewal Investment Needs (uninflated)	\$3.8	\$12.7	\$3.9	\$5.0	\$5.8	\$6.5	\$7.0	\$7.4	\$7.7	\$7.8	\$7.9	\$71.9
Renewal shortfall		-\$8.1	\$1.2	\$0.3	-\$1.4	-\$1.6	-\$1.9	-\$2.3	-\$2.3	-\$2.4	-\$2.7	-\$21.2
Maintenance		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Operations (Asset based)		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Consequential OPEX shortfall		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Depreciation	\$18.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

10-year Walls Financial Forecast



Source: SAP (June 2015)

■ Operations (Asset based) ■ Maintenance ■ Approved LTP Renewals

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Consequences if asset needs cannot be afforded

- The backlog will increase to \$21.2m in the next 10 years.
- Walls have a performance measure for asset condition of LOS 2 or no wall to be worse than “poor” or grade 4 condition. To ensure no wall fails unexpectedly.

Key issues

key issue	Recommendation
The ownership of AT-owned retaining and sea walls on private property requires investigation, this will be completed through data gathered from annual condition surveys.	To accomplish a sense of clarity ownership guidelines will be developed, so ownership details of all walls will be clear.
Condition integrity of structures on Lifeline routes is essential for public safety and civil defence, as required by Auckland Engineering Lifelines Group.	To address this a complete seismic assessment of all retaining and sea walls on Lifeline routes will be undertaken. Corrosion management along critical coastal routes shall be done also. After the above are completed a prioritised list of all walls requiring strengthening work will be amended.
The renewal of retaining and sea walls before their life span will be undertaken if the condition deems it needed to be replaced.	Renewal of damaged or poorly performing walls will take place when it is uneconomical to attempt a repair.
The renewals funding for structures which include bridges, retaining walls and sea walls are aggregated.	This split for renewals is to be 75%, 20% and 10% respectively for each structure.
As above the OPEX funding for structures is also aggregated as 85%, 10% and 5% for bridges, retaining walls and seawalls respectively.	The renewals funding the current expenditure will be assessed, and future expenditure needs forecast.
Sea walls could be made redundant by a rise in sea levels	This will be monitored and approached in the according manor to preserve the wall and its integrity.

