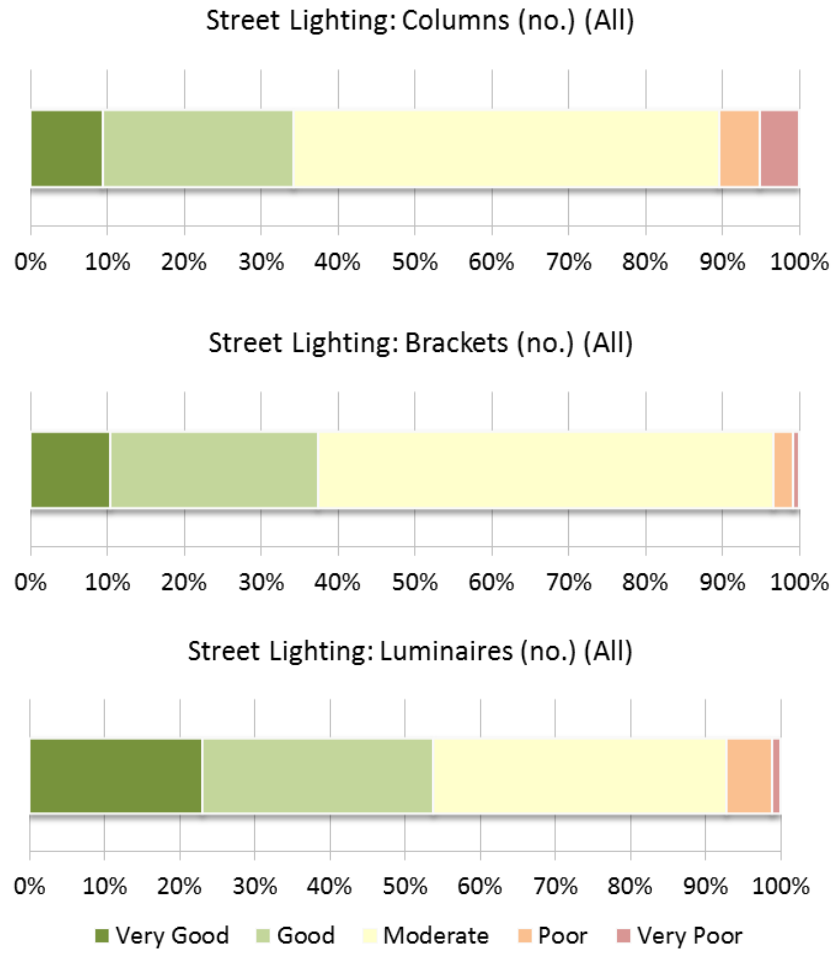
Street Lighting ACMP Summary

Network overview

Columns	65,021
Brackets	100,721
Luminaires	105,347
Current value	$99 million
Replacement cost	$194 million

Condition profile



Data source: RAMM (October 2014)

Asset data status	Column	Bracket	Luminaire
Age data	Unreliable	Unreliable	Unreliable
Condition data	Reliable	Reliable	Reliable

Street Lighting ACMP Summary

Street Lighting Level of service

Outcome:	The network is of suitable quality		
LOS statement:	Street lighting assets are maintained in a suitable condition		
Performance measure	Current Performance	Target Performance	Target date
Percentage of street light columns in backlog (in 'very poor' condition)	5.1%	2.3%	2025
Percentage of street light brackets in backlog (in 'very poor' condition)	0.8%	2.4%	2025
Percentage of street light luminaires in backlog (in 'very poor' condition)	0.8%	0%	2025
Compliance with average level of illumination on residential streets – 2 lux	50%	100%	TBC
Compliance with average level of illumination on: • collector roads – 3 lux • primary and secondary arterial roads – 4 lux	80%	100%	TBC

Outcome:	The network is managed in the most cost-effective manner		
LOS statement:	Street lighting is managed to least whole-of-life cost to maintain LOS		
Performance measure	Current Performance	Target Performance	Target date
Annual renewal cost for street lights	$9M	$12.6M	2025
Savings on electricity costs from 'smart controls' and LED technology	1%	13%	2018

Outcome:	The network minimises the potential for user death and trauma		
LOS statement:	Street lighting is managed to minimise fatal and serious injuries on the network		
Performance measure	Current Performance	Target Performance	Target date
Customer satisfaction with the street lighting aspect of road safety in Auckland region	73%	75%	30/06/2018

Current (2015) backlog

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

	$ value	% quantity
Columns	$6.1 millions	(5%)
Brackets	$177 thousands	(1%)
Luminaires	$394 thousands	(1%)
Street lighting total:	$6.6 million	-

Street Lighting ACMP Summary

Strategic approach

Auckland Transport (AT) is committed to managing its street lighting assets to deliver the agreed level of service, manage risk and achieve greater value for money. AT's street lighting work activities adhere to the key principles of:

- The right treatments
- In the right places
- At the right times
- For the right costs

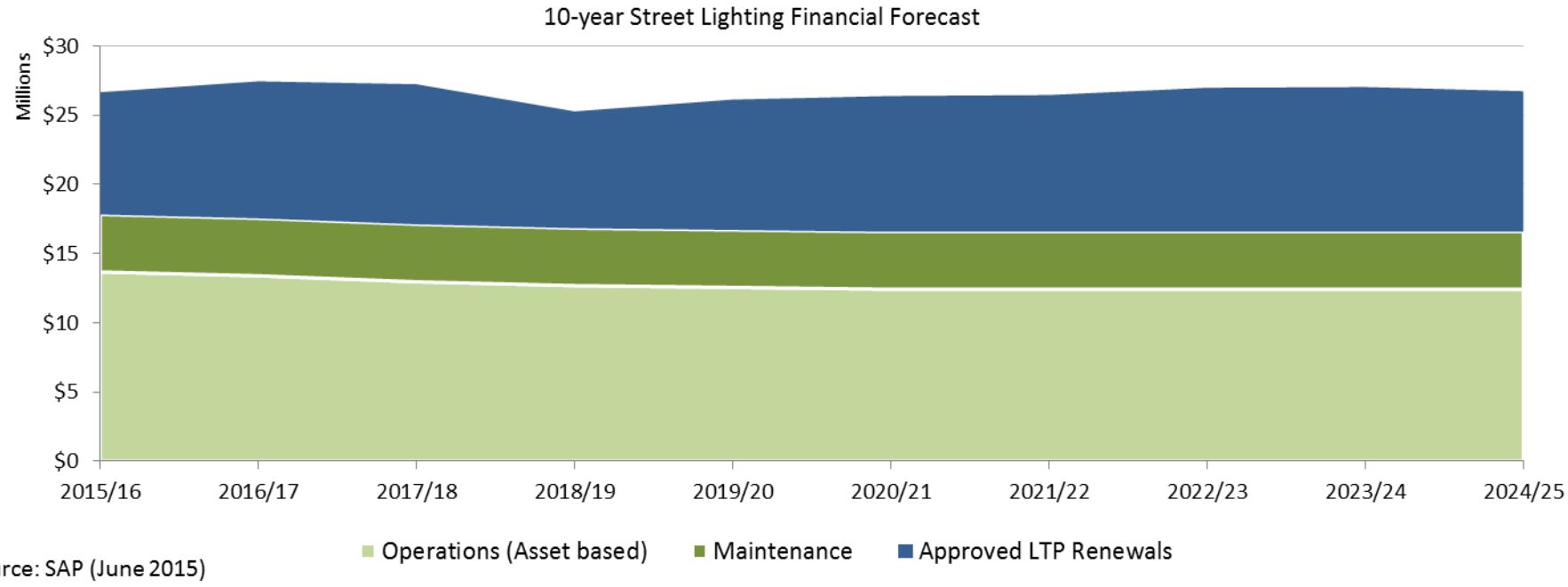
AT uses robust asset management tools to set appropriate levels of maintenance and renewal activities for its street lighting assets, to ensure that:

- Assets are maintained at the agreed level to continue to deliver optimal performance to the road users.
- Assets are programmed for renewal when they reach to 'very poor' condition.
- Assets are kept at the optimum condition level during their lives.

Street Lighting ACMP Summary

Renewal and Maintenance Costs ($M)

$millions	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	10-year total
Approved LTP Renewals (uninflated)		$8.8	$9.9	$10.1	$8.4	$9.4	$9.8	$9.9	$10.4	$10.5	$10.2	$97.5
Renewal Investment Needs (uninflated)	$8.5	$6.5	$25.3	$23.6	$15.3	$13.7	$14.8	$13.8	$13.0	$12.1	$11.5	$149.6
Renewal shortfall		$2.3	-$15.3	-$13.5	-$6.9	-$4.3	-$5.0	-$3.9	-$2.6	-$1.6	-$1.3	-$52.1
Maintenance		$0.4	$0.8	$1.3	$1.7	$2.2	$2.6	$3.1	$3.6	$4.1	$4.6	$24.6
Operations (Asset based)		$4.2	$4.2	$4.2	$4.2	$4.2	$4.2	$4.2	$4.2	$4.2	$4.2	$41.5
Consequential OPEX shortfall		$13.7	$13.4	$13.0	$12.7	$12.6	$12.4	$12.4	$12.4	$12.4	$12.4	$127.4
Depreciation		$0.4	$0.8	$1.3	$1.7	$2.2	$2.6	$3.1	$3.6	$4.1	$4.6	$24.6



Source: SAP (June 2015)

Street Lighting ACMP Summary

Consequences if asset needs cannot be afforded

- Target key performance measures not achieved
- Customer complaints due to poor lighting in their area
- Negative impacts on LED retrofit program

Key issues

Key issues	Recommendations
High electricity usage for street lights	Replace the existing high-energy-use luminaires with more energy-efficient LED luminaires.
Poor lighting performance and low illumination levels	Measure and monitor the luminance of the region on a regular basis. Undertake illumination improvement works through capital programmes
Potential increase in renewal costs due to joint ownership of lighting facilities with other utilities	Clarify ownership and maintenance of lighting assets
Night-time crashes that are attributable to lighting	Ensure illumination levels in the region are up to standard.
The need of good street lighting features to implement better urban design	Investigate good urban design features for street lighting and implement them within redevelopment projects.