



## **EXECUTIVE SUMMARY**

This report assesses the level of lighting and provides a concept scheme to upgrade lighting to Australian Standards, to enhance security, for expected patronage, and reduce energy consumption.

The existing car park lighting does not comply with Australian Standards with regards to lighting levels. It contains high pressure sodium lamps which give a dull yellow/orange colour which is not ideal for surveillance. The parks are floodlit, however, it only provides a small pool of light and there is no lighting in the gazebos or the barbecue areas. There is no lighting on the dual use path.

The existing car park and park floodlight luminaires have poor and inefficient optical systems resulting in obtrusive light and disability glare and should not be retained. This report proposes that 'off-the-shelf' luminaires containing metal halide lamps for the car park, park, barbecue and playground luminaires, and compact fluorescent lamps for the lighting along the dual use path be installed.

The existing car park lighting poles can be retained. This report recommends that new poles be hot dipped galvanised and be a minimum height of 6 metres and poles less than a height of 12 metres be installed direct buried. Powdercoating of poles is not recommended because this recreational area is close to the coast.

The lighting on the dual use path and the Mullaloo Surf Life Saving Club building exterior will be on all night whereas the lighting for the car park, park, barbecue and playground will have bi-level switching and a timer and at a nominated time, the lighting will reduce to 55% light output. This will reduce the overall energy consumption, reduce post curfew obtrusive light, extend the life of the lamps and still provide security lighting.

There are distinctive mature trees in Tom Simpson Park and the Surf Life Saving parkland that have large thick foliage and would appear impressive at night if effectively lit. Inground uplights would be ineffective and expensive because of their large trunks and thick foliage, however, directional floodlights designed to reduce obtrusive light on neighbouring properties, reduce glare and have the option of colour filters for festive occasions (ie. Christmas, Easter, St. Patrick's Day etc.) maybe appropriate. The floodlights would be mounted onto the poles with the park lights and the playground lights which means that additional poles would not be required.

Upgrading the lighting at the Mullaloo Recreational Area:

- brings the lighting to Australian Standards during peak times.
- provides security lighting during non-peak times.
- doesn't mean that there is a large increase in energy consumption.
- with luminaires with efficient optical systems will reduce the obtrusive light to residents, motorists and marine navigation and most importantly preserving ocean views.
- with decorative luminaires and pole can give the Mullaloo Recreational Area a distinctive identity.

This report provides a site audit, concept scheme, order of cost estimate and pictures of typical luminaires.



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### Tom Simpson Park - Lighting Upgrade Costs

Project Area	Risk of Crime	Expected Patronage	Required Funds	Existing Lighting	Priority	Order of Cost Estimate	Stage
Dual Use Path	High	High	High	None	1	\$50,000	1
Car Parks	High	High	High	Poor	2	\$50,000	2
Park Area & BBQs	High	Medium	Medium	Poor	3	\$45,000	3
Gazebos	Medium	Medium	Low	None	4	\$20,000	3
Building Exterior	Medium	Medium	Low	Poor	4	\$10,000	2
Trees	N/A	N/A	Low	None	5	\$5,000	2
Design, Documentation & Superintendence						\$15,000	1
<b>TOTAL</b>						<b>\$195,000</b>	

<b>Stage 1</b>	Dual Use Path	\$50,000
	Design, Documentation & Superintendence	\$15,000
<b>Total</b>		<b>\$65,000</b>

<b>Stage 2</b>	Car Parks	\$50,000
	Building Exterior	\$10,000
	Trees	\$5,000
<b>Total</b>		<b>\$65,000</b>

<b>Stage 3</b>	Park Area & BBQs	\$45,000
	Gazebos	\$20,000
<b>Total</b>		<b>\$65,000</b>