



# Astrotourism Towns Project

Update December 2023

Since the Total Solar Eclipse Discovery Tour events in April, several new projects have been initiated. These are assisting in the development and promotion of dark sky tourism in the Astrotourism Towns network and are summarised below.

Also included with this report is some data analysis from the Astrotourism WA website and social media Facebook platform.

## **North Metropolitan TAFE Project**

Students studying Travel and Tourism at Perth's North Metropolitan TAFE worked with five Astrotourism Towns to develop innovative visitor dark sky tourism holiday packages. The Local Governments participating were:

- Shire of Dandaragan;
- Shire of Morawa;
- Shire of Shark Bay;
- Shire of Upper Gascoyne; and
- Shire of Wickelpin

This is the third year of this project which leverages WA's world-class dark night sky to grow local tourism economies, foster collaborative marketing, and develop new products to drive visitation to the regions.

A media statement was released on 16 November 2023. The story was picked up by Perth Now.

## **Astrofest 2023 Astrophotography Exhibition and Competition**

The Astrofest Astrophotography Exhibition has a circular promotional effect. It encourages astrophotographers to travel to Astrotourism Town destinations to take images and enter the competition. This in turn, inspires other astrophotographers to travel to the same locations to take their own images.

The Astrotourism WA Best Nightscape Award of the Astrofest 2023 Astrophotography Exhibition and Competition was sponsored by the Shire of Upper Gascoyne and the Shire of Perenjori. A total of 37 images were entered into the Astrotourism WA Best Nightscape Award (approximately 19% of all nightscape images entered overall).

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The 2023 competition had entries from the following Astrotourism Towns:

<b>Number of Entries 2023</b>	<b>Astrotourism Town</b>
1	Shire of Ashburton
4	Shire of Carnarvon
4	Shire of Chittering
8	Shire of Dandaragan
7	Shire of Morawa
5	Shire of Northam
1	Shire of Perenjori
1	Shire of Three Springs
3	Shire of Upper Gascoyne
3	Shire of Wongan-Ballidu

The winner of the Best Astrotourism WA Nightscape Award was Virat Shah for his image entitled “Desert Dreams”. Trevor Dobson was runner up with “Sentinels of the Stars”. Both the winner and runner up images were taken in the Shire of Dandaragan.

The 2023 Best Astrotourism Towns Nightscape Award – Winner was sponsored by the Shire of Upper Gascoyne. The prize comprised:

- Two nights accommodation at the Gascoyne Junction Pub and Tourist Park in a 1 Bedroom Self Contained Unit plus a \$75 Gift Voucher to spend at the Gascoyne Junction Pub and Tourist Park Restaurant; and
- One night accommodation at the Mount Augustus Tourist Park in a Self Contained Unit plus a \$75 Gift Voucher at the Mount View Dining Room.
- Total value: \$628

The 2023 Best Astrotourism Towns Nightscape Award – Runner-up, was sponsored by the Shire of Perenjori. The prize comprised:

- Two nights accommodation at the Perenjori Caravan Park in a Chalet, plus a voucher of \$100 to spend at the Perenjori Hotel.
- Total value: \$370

The trophies for the winner and runner-up were sponsored by Astrotourism WA.

### **Dark Sky Friendlier LED Streetlight Project**

Astrotourism WA is pursuing a better street light to protect WA’s dark night sky for the Tourism Industry and to unlock the opportunities for our towns to apply for International Dark Sky Accreditation.

Over the last six months Astrotourism WA has been meeting with Tristan Simpson, Senior Environmental Officer at the Department of Biodiversity, Conservation and Attractions (DBCA), who is also pursuing the same initiative for their North West Shelf Flatback Turtle Conservation Program.

If we prove demand for such a streetlight to Western Power, DBCA will fund the design of the streetlight that will meet Australian Standards, meet International Dark Sky Community accreditation criteria, fit with existing infrastructure, and have negligible impact on the street light tariffs paid by Local Government.

The list of support letters received so far are from:

- City of Cockburn
- Shire of Augusta Margaret River
- Shire of Chittering
- Shire of Dandaragan
- Shire of Menzies
- Shire of Mingenew
- Shire of Mundaring
- Shire of Perenjori
- Shire of Shark Bay
- Shire of Three Springs
- Shire of Upper Gascoyne
- Shire of West Arthur

The project flyer is attached as Appendix 1 at the end of this report and a template letter of support is available if required.

### **Western Power Streetlighting Public Consultation 2024**

The Economic Regulation Authority (ERA) has asked Western Power to conduct a public consultation on street lighting in the first half of 2024. There will be an opportunity for the Astrotourism Towns to provide submissions. Astrotourism WA will alert the network when submissions open and will also supply template information to advocate for the right type of streetlight design that improves the night time environment and still preserves safety.

### **Dark Sky Tourism Experience Development**

Astrotourism WA welcomes the opportunity to work with your tourism operators should they wish to provide dark sky experiences for guests and visitors. Please ask them to contact Carol Redford at [carol@astrotourismwa.com.au](mailto:carol@astrotourismwa.com.au) or 0427 554 035 if you hear of any interest.

When required, Astrotourism WA continues to assist the following tourism operators to develop their skills and competency to provide stargazing and astronomy experiences for their clients and visitors:

- Jurien Bay Adventure Tours, Shire of Dandaragan
- Madeline Andreson, Yued Astrotourism Guide, Shire of Dandaragan and Shire of Chittering
- One Gate Farm, Shire of West Arthur
- Wooramulla Eco Cultural Journeys, Shire of Carnarvon and Shire of Upper Gascoyne
- Gwoonwardu Mia Gascoyne Aboriginal Heritage and Cultural Centre, Shire of Carnarvon
- Carnarvon Space and Technology Museum, Shire of Carnarvon

- Cheela Plains Station Stay, Shire of Ashburton
- Telescope for hire, Shire of Mingenew
- Barna Mia Nocturnal Wildlife Experience, Shire of Narrogin
- Hamlin Station Stay, Shire of Shark Bay

## **Dark Hotels**

Accommodation providers that list properties on [www.booking.com](http://www.booking.com) can now elect to be shown on the new Dark Hotels map, <https://darkhotels.co/>. This new map overlays light pollution with the location of accommodation which assists the dark sky traveller determine the best location for astronomy and stargazing activities.

## **Dark Sky Tourism Signage**

The “Giant Planisphere” and “Stargazing for Beginners” signage continue to be installed in Astrotourism Towns. The “Giant Planisphere” sign is an interactive tool to assist visitors find out what’s up in the night sky and the “Stargazing for Beginners” sign gives tips on how to make the best of an astronomy experience. New signs are due to be installed in:

- Shire of Ashburton
- Shire of Shark Bay; and
- Shire of Upper Gascoyne

Signs are already located in the Shires of Lake Grace, Mingenew, Narembeen, Narrogin and Perenjori. Trail marker signage is also installed in the Shire of West Arthur.

## **National Sustainability Framework for the Visitor Economy**

By being part of the Astrotourism Towns Project, you are meeting some of the goals of the recently released [National Sustainability Framework for the Visitor Economy](#).

Below are some brief outlines of how Astrotourism Towns are meeting these goals. These can be expanded with associated research to strengthen grant applications if required.

### **Pillar 2 Environmental and climate action:**

- Goal 4: Conserving and contributing to biodiversity, including by protecting our World Heritage areas, and native fauna and flora.

By reducing artificial light pollution for dark sky tourism initiatives, you’re contributing to the protection of the night time environment which includes native fauna.

- Goal 5: Shaping responsible visitor behaviour through storytelling and education and, where appropriate, regenerative practices.

You’re engaging with dark sky tourism visitors to educate them about the night time environment and encouraging them to turn out lights for improved stargazing experiences.

### **Pillar 3 Respecting culture**

- Goal 1: Protecting and preserving cultural assets consistent with principles of self-determination, values and traditions including World Heritage areas, natural sites of significance, buildings of cultural and historical importance, and traditions that make a community distinct.

The night sky is a valuable cultural asset. By being part of the Astrotourism towns Project, you're protecting and preserving values and traditions linked to the night sky stars.

- Goal 4: Embedding sustainable building design practices that are sensitive to cultural heritage and the local environment.

Communities on the Astrotourism Towns map have been using the Department of Planning's Dark Sky and Astrotourism Position Statement to guide lighting designs for new buildings and/or facilities.

### **Pillar 4 Creating positive social impact**

- Goal 1: Creating economic opportunity through jobs and increased business for local communities.

One of the aims of the Astrotourism Towns Project is to encourage new or existing tourism operators to provide dark sky experiences for visitors and thereby increase revenue in our communities.

- Goal 2. Purchasing from and promoting local suppliers to support other businesses and grow regional economies.

As dark sky events and activities occur around meal time, we always encourage local suppliers to provide food and beverage which supports small business and/or not for profit organisations to grow the regional economy.

- Goal 5: Maintaining a social licence to operate through collaborative community engagement, and implementing visitor management strategies to reduce pressure on local communities.

Through community capacity building and STEM engagement with schools, regional students and residents are exposed to the science of astronomy and the awe-inspiring night sky. This has social benefits and demonstrates study and career pathways in science.

### **Recent Promotion**

Astrotourism WA aims to release monthly media statements on various activities in the Astrotourism Towns. This assist with promotion and below are some recent stories and interviews picked up by a variety of media channels.

01-Dec-23	Australasian Dark Sky Alliance eNews	<a href="#">Perth TAFE students take starring role in developing astrotourism in WA</a>
23-Nov-23	Perth Now	<a href="#">Perth TAFE students take starring role in developing astrotourism in WA</a>
18-Nov-23	Weekend Australian Travel and Luxury Liftout	<a href="#">Star Struck, into the orbit of astrotourism enthusiasts</a>
01-Nov-23	Astronomy Australia Almanac 2024	Advertisement for Astrotourism WA
24-Aug-23	Triple MMM	Shire of West Arthur/One Gate Farm Event (with Donna Vanzetti)
23-Aug-23	RDA Wheatbelt eNews	Astrotourism WA, Shire of West Arthur/One Gate Farm event, Shire of Chittering event, Shire of Northam event
09-Aug-23	Tourism WA Travel News	<a href="#">Spring Stargazing - West Arthur/One Gate Farm/Chittering Spring Fest events</a>
20-Jul-23	Radio 6PR	Carmen Wilson, Gascoyne Junction Remote Community School interviewed on Kids in Space Win
20-Jul-23	ABC Radio Pilbara - Kelly Gudgeon, Breakfast Presenter	Kids in Space Win - Gascoyne Junction Remote Community School space project competition and light pollution
16-Jul-23	Triple MMM Todd Gray	Next steps for Dark Sky Tourism in Mid West, Community Builders Workshop
07-Jul-23	RAC Horizon Magazine	<a href="#">More than just wildflowers</a>

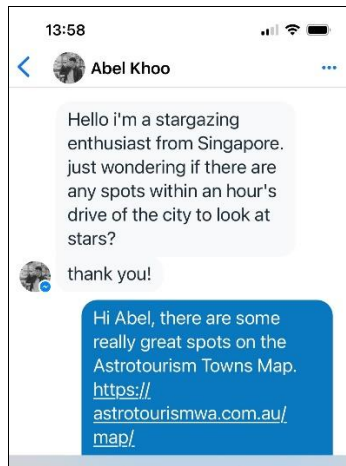
In addition to media releases, Astrotourism WA writes monthly stargazing columns for Have-A-Go-News, Northern Valleys Newspaper and the Astronomical Society of WA Sidereal Times. In addition, a quarterly column is written for the Western 4WDriver Magazine.

Carol Redford is interviewed every fortnight on Triple MMM Radio where she promotes the Astrotourism WA website, news and stargazing.

### **International Promotion**

Astrotourism WA has been back in touch with 161 astronomy clubs in the UK to promote the Astrotourism Towns Map to their members. The aim is to provide information to potential dark sky travellers. These groups will be contacted again in June 2024 to provide them with any information regarding the 2028 Total Solar Eclipse visible from WA.

Enquiries like the one below from Singaporean visitor, Abel Khoo, are starting to pop up from time to time. These were regular prior to the Covid pandemic and it's exciting to see this type of engagement beginning again.



Facebook message to Astrotourism WA received on 11 December 2023

## Dark Sky Tourism Events

Several events have been held recently in Astrotourism Towns. These include:

- 30 September, Onslow Staircase to the Moon Markets Stargazing, Shire of Ashburton
- 6-7 October: Narrogin Spring into Parks Wilman Country Stargazing Experience
- 4 November: Wongan Hills Stargazing and Ballardong Aboriginal Astronomy, (80 attendees)
- 23 September: One Gate Farm Stargazing & Aboriginal Astronomy (50 attendees)
- Private event, Shire of Northam

The theme of Aboriginal Astronomy resonates very strongly with audiences and is a highly sought after dark sky experience.

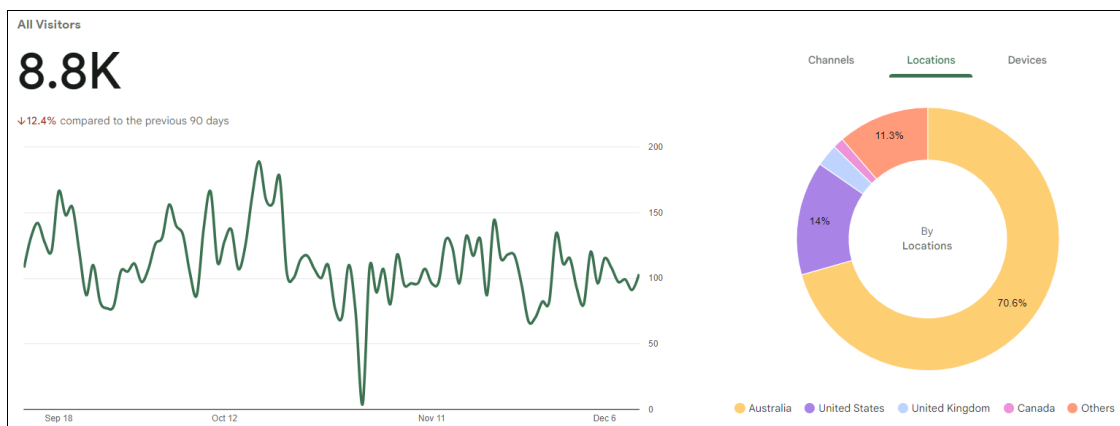
Upcoming events planned for 2024 include:

- 18 January: Northam School's Out Stargazing
- 22 March 2024: Three Springs Silo Movie Projection and Stargazing Night

## Astrotourism WA Website Analytics (September to December 2023)

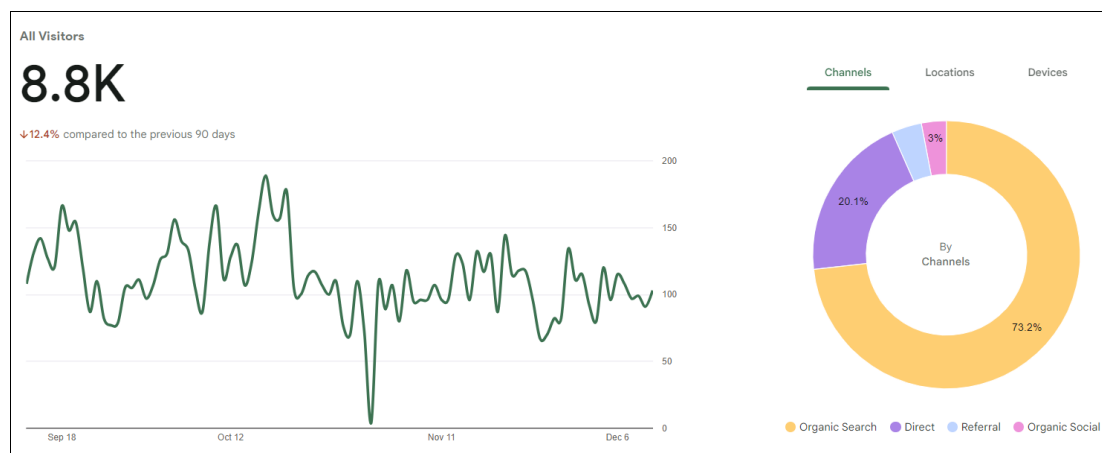
Visitors to the Astrotourism WA website by location of visitor

Please note the number of visitors from the USA and UK.



## Visitors to the Astrotourism WA website by channels

The primary way visitors find the website is via organic searching. This reflects the fact that there is no budget for paid advertising campaigns. However, one out of five visitors key in the website directly, which indicates that 20% of visitors find the website through brochures, other websites or promotional articles.



Please note the drop in website traffic on 1 November 2023 was caused by a server host error that took the website off line for approximately 2 days.

## Top search queries for Astrotourism WA

Top search queries for your site	Clicks	Impressions
1. <a href="#">emu in the sky</a>	143	3,890
2. <a href="#">astrotourism wa</a>	108	158
3. <a href="#">emu in the sky constellation</a>	93	597
4. <a href="#">southern cross stars australia</a>	90	471
5. <a href="#">astrofest</a>	67	2,983

## Top content on the Astrotourism WA website

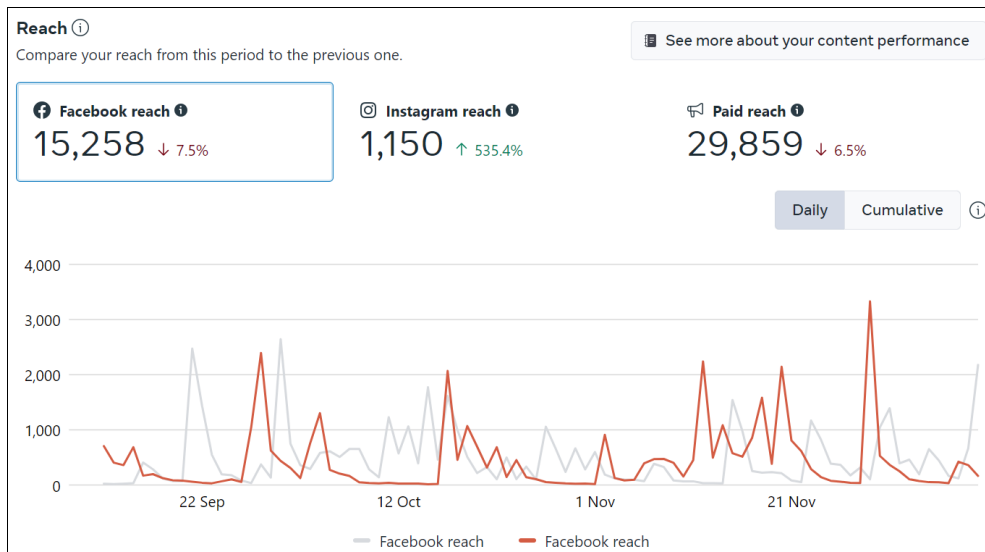
Home is the most frequently visited page of the website. Seven of the top 10 pages visited are stargazing related information. The [Astrotourism Towns map](#) is 6<sup>th</sup> most visited page and the [Astrotourism Towns page](#) is 8<sup>th</sup>.

1. <a href="#">Stargazing in Western Australia   Places for Astrophotography &amp; Observing</a>	1,511	1,291	64.6%	1min. 11s.
2. <a href="#">Emu in the Sky   June   How to See it and Where to Look</a>	1,307	1,295	48.73%	1min. 45s.
3. <a href="#">Milky Way Galaxy   April to October   Have You Seen the Milky Way Under a Dark Sky?</a>	786	792	44.82%	1min. 25s.
4. <a href="#">Southern Cross   April   Australia's Favourite Constellation</a>	700	679	44.33%	1min. 17s.
5. <a href="#">Andromeda Galaxy   October - December   How to Find Our Largest Galactic Neighbour</a>	673	654	54.28%	1min. 32s.
6. <a href="#">Astrotourism Towns Western Australia   Sharing the night sky with you</a>	618	563	72.11%	1min. 18s.
7. <a href="#">Sagittarius   Can You Find the Teapot in the Sky?</a>	421	422	45.5%	1min. 58s.
8. <a href="#">Astrotourism Towns   Where to go Stargazing in Western Australia</a>	377	345	83.48%	1min. 43s.
9. <a href="#">What's Up in the Night Sky? Your Guide for Stargazing Western Australia</a>	370	315	93.02%	31s.
10. <a href="#">International Space Station   When and How to See the ISS</a>	362	350	50.57%	51s.

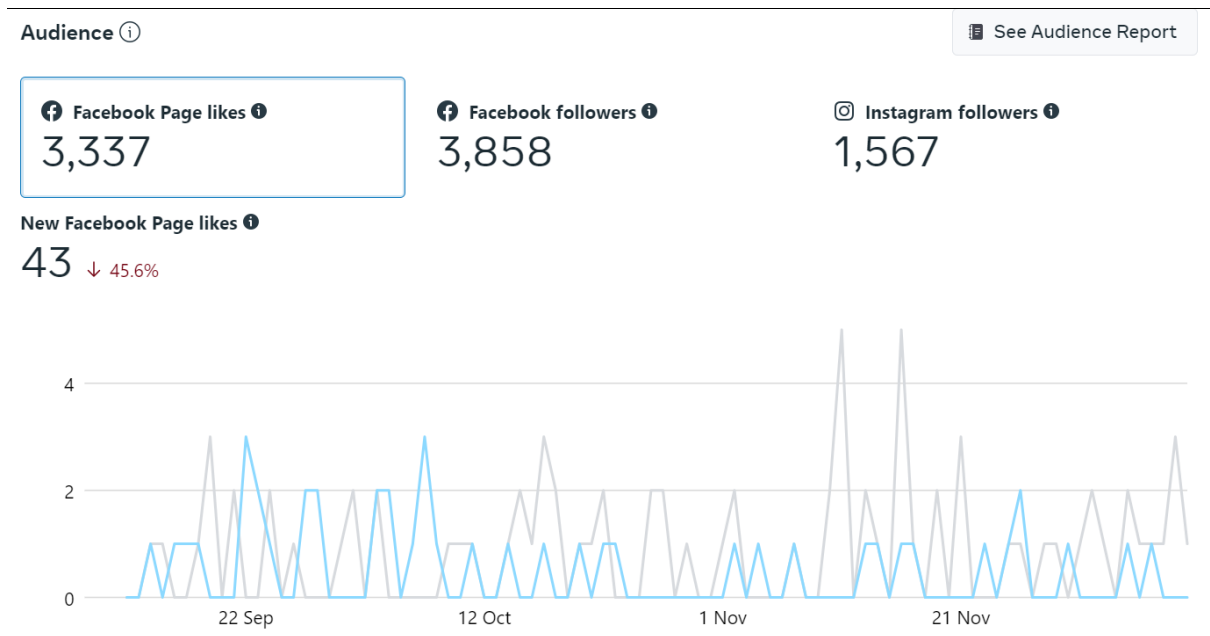


# Astrotourism WA Facebook Analytics (September to December 2023)

*Reach (the number of people who saw posts at least once)*



*Audience (number of people liking and following)*



# Appendix 1



## Marine Turtles Western Australia

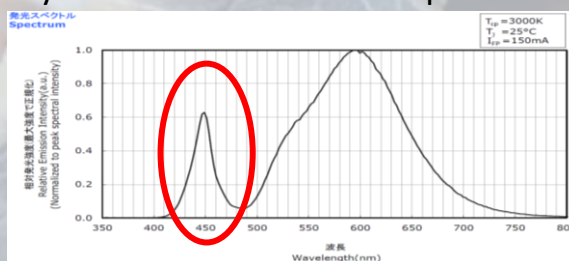
North West Shelf Flatback Turtle  
Conservation Program

# Seeking Formal Support of Local Governments

**For the development of a dark sky and wildlife friendlier LED streetlight luminaire for Local Governments to be able to choose as an installation option from Western Australian power companies where appropriate.**

### Background:

- Western Power is responsible for the procurement and purchasing of streetlights for the State, including those for Horizon Power.
- In some Western Australian communities, Western Power and Horizon Power are installing 3000K or 4000K LED streetlights.
- These LED streetlights have environmental benefits, including a reduced carbon footprint from lower energy usage and lower maintenance needs.
- However, improvements can be made to the lighting design to reduce the impacts to the nighttime environment and wildlife. Below is the spectral power distribution curve on a current 3000K streetlight showing a blue light spike that is detrimental to many native and threatened species and the dark night sky.\*



- DBCA and Astrotourism WA will propose to Western Power that an additional dark sky and wildlife friendlier LED streetlight luminaire option be added to the existing catalogue for selection to install by Local Governments.

### Comments:

- Western Power has confirmed its provisional support for this initiative pending demonstrated and formal confirmation from a representative proportion of Western Australia's Local Governments.

\* Department of Climate Change, Energy, the Environment and Water, 2023, National Light Pollution Guidelines for Wildlife, Commonwealth of Australia, accessed 10 August 2023

(<https://www.dccew.gov.au/sites/default/files/documents/national-light-pollution-guidelines-wildlife.pdf>)





## Marine Turtles Western Australia

North West Shelf Flatback Turtle  
Conservation Program

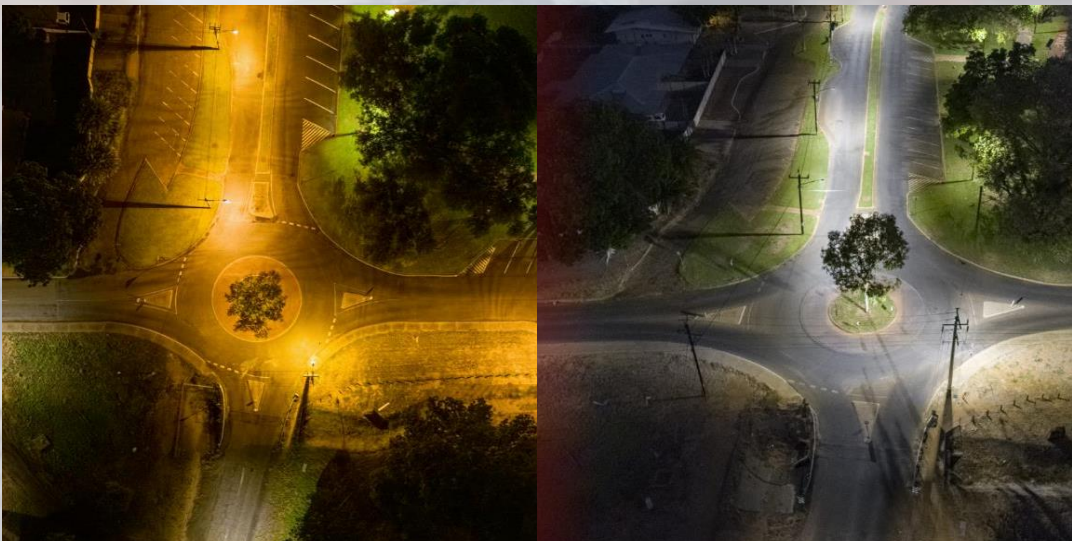
- Upon enough support being obtained, DBCA and Astrotourism WA will collaborate with Western Power to procure a qualified lighting designer to progress. Once developed, the final luminaire product design(s), specifications and costs will be shared with Local Governments who have registered their formal support for feedback prior to progressing any further with Western Power.

### Financial Implications:

Nil. DBCA has completed preliminary discussions with lighting designers and has identified that this initiative is feasible with negligible additional cost and tariffs. The cost of the design of a new dark sky and wildlife friendlier streetlight will be covered by DBCA.

### Request:

This initiative can be supported by providing a letter indicating confirmation your demand for such an LED streetlight luminaire for installation within your jurisdiction. A template letter of support is provided.



### For further information:

Tristan Simpson, DBCA – [tristan.simpson@dbca.wa.gov.au](mailto:tristan.simpson@dbca.wa.gov.au) or (08) 9219 9754  
Carol Redford, Astrotourism WA – [carol@astrotourismwa.com.au](mailto:carol@astrotourismwa.com.au) or 0427 554 035