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COMMUNITY CONSULTATION

PORT MOOROWIE DARK SKY LIGHTING POLICY

Project Summary

The Yorke Peninsula Council wish to consult on the proposed Port Moorowie Dark Sky Lighting Policy (the Policy), as presented in Attachment 1.

The Friends of Port Moorowie Inc (FoPM), a group of committed volunteers, represent their membership and work towards the betterment of Port Moorowie. FoPM have investigated and consulted locally on the principle of Dark Sky, and as such have requested Council implement the Policy.

Dark sky restores the night-time environment and protects communities from the effects of light pollution. Light pollution disrupts wildlife, impacts human health, consumes energy and therefore has an associated financial cost, contributes to climate change, and affects the view of the solar system such as stars.

By adopting the Policy, Council in partnership with the Port Moorowie community can mitigate the adverse effects of light pollution within the township and preserve the current dark sky.

Purpose

The Yorke Peninsula Council invites you to comment on the proposal for Council to adopt the Port Moorowie Dark Sky Lighting Policy.

Background

The Friends of Port Moorowie Committee (FoPM) have been investigating the "Dark Area/Dark Sky" principle (principle) since the idea was suggested by a local resident and discussed at their 11 May 2024 FoPM meeting. The resident suggested the idea due to the lack of outside lighting within the township, therefore providing a unique dark sky not seen within many townships.

The Chairperson of FoPM researched the principle and provided reference materials to FoPM to understand the importance of preserving dark sky, lighting infrastructure options, and the role of the International Dark Sky Association (Association). FoPM agreed to pursue the principle of dark sky and the following was undertaken:

- Researched the process conducted by the Carrickalinga community, the first Dark Sky Community in South Australia.
- Researched the different categories assigned by the International Dark Sky Association (such as the River Murray Dark Sky Reserve).
- Released an article in the FoPM newsletter August 2024 edition of The Whaler (Attachment 2), asking the Port Moorowie community to respond to the proposal.
- As 54 responses received were positive, work was undertaken to develop a submission to the Association, with review and feedback provided from the Carrickalinga proponents.
- A key outcome of this review highlighted the need for a Port Moorowie Day Sky Lighting Policy (Policy) to be endorsed by Council, to achieve compliance of the Association.

During the 2024 Christmas/New Year holiday period, FoPM decided to undertake further consultation, when a broader number of residents, property owners and visitors could participate in a survey. From this survey, 127 responses were received from 37 permanent residents, 31 broader Yorke Peninsula residents, and 59 from visitors to the area.

Whilst the responses indicated strong support, there were also legitimate concerns raised regarding the proposal, and also the ability to meet the conditions and ongoing commitments of the Association. As such FoPM endorsed the motion to not continue with the proposal to become a Dark Sky Community, but rather make application to Council to implement a Port Moorowie Dark Sky Lighting Policy (the Policy), at their March 2025 meeting. This was communicated to the community via the April 2025 edition of The Whaler (Attachment 3 Newsletter article edition April 2025). Further education and explanation of the importance of dark sky have been provided to the community by way of Dark Sky Signage (Attachment 4).

Considerations

Key obligations Council will have under the Policy are:

- Ensure that Council, other Government bodies and private landholders within Port Moorowie understand how they can assist, attain, preserve and promote the Dark Sky concept.
- Retain unlit streets (currently no street lights), however if there is a need, ensure that any new public lighting within Port Moorowie meets the standards and requirements expected as 'Dark Sky Friendly', namely:
 - Install new public lighting only when necessary that activates only when needed;
 - Direct lighting downwards including fitting of light shields;
 - Ensure intensity of lighting is appropriate; and
 - Install lamps with correlated colour temperature (CCT) less than 3000K but preferably 2000K.
- When the time comes for renewal or upgrade, retrofit existing outdoor public lighting, such as the boat ramp in Port Moorowie, to meet the standards and requirements expected.

It should be noted that Port Moorowie has little scope for subdivision and therefore any additional street lighting is unlikely.

Retrofitting of existing public lighting would occur at the time of renewal/upgrade, and as such is not currently budgeted for.

Under Council's PO056 Council Infrastructure Policy, Council may consider any reasonable request for new street lighting, subject to budget allocations and SA Power Networks approval. The cost of street light shields (pathway visors) shall be borne by the resident.

Timeline

The consultation period commenced Thursday 11 December 2025 and will close 5.00pm on Tuesday 13 January 2026.

Following the consultation period, a report will be presented to Council on the outcome of the consultation process for their consideration.

How do I provide my feedback?

Written Submissions

Submissions must be in writing, be received by 5.00pm Tuesday 13 January 2026, and be addressed to:

Community Consultation
Port Moorowie Dark Sky Lighting Policy
PO Box 57
Maitland SA 5573
Email: admin@yorke.sa.gov.au

Please include in your submission if you wish to be heard before Council on this matter.

What happens to my feedback?

The information from the public consultation process will assist Council in its deliberation associated with adopting the Policy or otherwise.

Submissions received from the public consultation process will be collated and presented in a report to Council if required.

How do I know my feedback has been received?

All feedback (submissions or correspondence) will be acknowledged.

Contact Person

For more information, please contact:

Name: Ian Yarrow
Title: Operations Manager
Phone: 8832 0000
Email: admin@yorke.sa.gov.au

This detailed report is available for viewing at Yorke Peninsula Council offices at Maitland, Minlaton, and Yorketown and on Council's website, www.yorke.sa.gov.au



COUNCIL POLICY

Draft Port Moorowie Dark Sky Lighting

Policy Number:	Awaiting Council endorsement or otherwise		
Strategic Plan Objective:	<p>Goal C - Supported and engaged communities</p> <p>C.1. Support Progress Associations and other local community groups to improve community and environmental outcomes.</p> <p>Goal E - Protected and restored environment</p> <p>E.3. Actively promote, protect, rehabilitate, and conserve our natural environment and coastal areas through partnerships.</p> <p>Goal L - Responsible Leadership and governance</p> <p>L.3. Delivery of core services, including city amenity and the renewal of assets.</p>		
Policy Owner:	Director Assets and Infrastructure Services	Record Number:	tba
Responsible Officer:	Operations Manager	Minute Reference:	tba
Date Adopted:	Awaiting Council endorsement or otherwise	Next Review Date:	tba

1. POLICY OBJECTIVES

The Yorke Peninsula Council (Council) recognises the uniqueness and opportunities available to Port Moorowie to preserve the night sky.

This policy aims to adopt the principles of the International Dark Sky Association (IDSA) which encourages outdoor lighting practices that will minimise light pollution, glare and sky glow in order to preserve the natural dark of the night sky and reduce artificial light effects on human, plants, and animals including sea creatures.

Council under this Dark Sky Lighting Policy for Port Moorowie aims to:

- Ensure that Council, other Government bodies and private landholders within Port Moorowie understand how they can assist, attain, preserve and promote the Dark Sky principles.
- Ensure that any new public lighting within Port Moorowie meets the standards and requirements expected of the Dark Sky principles.
- When the time comes, retrofit existing outdoor public lighting, ie the boat ramp in Port Moorowie, to meet the standards and requirements expected of the Dark Sky principles.

2. SCOPE

This policy shall only apply to the designated area of Port Moorowie Township. This Policy can be updated via further Council Resolution to other areas pending a process which is to include public consultation on an updated Draft.

3. DEFINITIONS

Refer to Attachment 1.

4. POLICY STATEMENT

The Yorke Peninsula Council recognises the uniqueness and opportunities available to Port Moorowie within the district and seek to have the opportunity to be recognised as a Dark Sky Community within the Council area only. This recognition needs to be considered in two parts:

- a) Public Lighting Infrastructure: lighting infrastructure owned/managed by Council, government bodies and/or other service authorities for the purpose of lighting public spaces and infrastructure ie the boat ramp light at Port Moorowie
- b) Private Infrastructure: focussing on community education, with private landowners being encouraged to upgrade existing external lights to be compliant with Dark Sky standards.

4.1 New Public Infrastructure in Port Moorowie

If meeting all requirements under Australian Standards and/or other local authority standards, the Yorke Peninsula Council wishes to install and manage any outdoor public lighting, it shall be in accordance with the minimum requirements for lighting under the 'Dark Sky Friendly' principles.

Where possible, lighting shall be 'Dark Sky Friendly' through the following principles:

- Outdoor public lighting should only be installed when deemed necessary and should only be activated when needed.
- All outdoor lighting should be directed downwards so that light trespass is avoided.
- Fittings should include light shields so that light is directed downwards and there is no upward lighting.
- The intensity of outdoor lighting should be appropriate for its intended use.
- Correlated colour temperature (CCT) of lighting shall be less than 3000K but preferably 2000K.

4.2 Public Street Lighting

As Port Moorowie does not currently have any street lighting and there have not been any applications for it to have public street lighting, it will remain without street lights. Should this change in the future, then Council specify the lowest level category, as indicated in current Australian Standards, to keep the lighting level (and tariff costs) as low as possible, whilst recognising Council's obligations around crime prevention through environmental design (CPTED).

Installation of any public street lighting in Port Moorowie will be to the minimum specifications in accordance with current Australian Standards and utilising standard SA Power Networks luminaries which meet CCT requirements of lighting than 3000K but preferably 2000K.

Should there be any street lighting installations in Port Moorowie, shielding and/or aero screen fittings shall be utilised as standard.

Layout for any new street lighting in Port Moorowie shall be prepared by a suitably qualified lighting engineer, ensuring that lighting is minimised while still maintaining standards under Australian Standards.

4.3 Private Development (non-residential)

Provisions of this policy will be drawn to the attention of any private development proponents (noting that development applications can only be assessed against the criteria of the State Planning Policies).

4.4 Existing Infrastructure

The Yorke Peninsula Council commits to ensuring dark sky appropriate lighting will be designed and located accordingly when renewing or upgrading Council owned lighting in Port Moorowie.

5. COMPLAINTS

Complaints relating to the Port Moorowie Dark Sky Policy can be made in writing to Council's Operations Manager. All complaints will be managed in accordance with Council's PO147 Complaints Policy.

6. REVIEW

This policy will be reviewed every five (5) years and as deemed necessary in consideration of any changes to legislation, relevant standards, codes and guidelines, audit findings, any corrective actions/controls arising from risk assessment and/or hazard/incident reports, stakeholder feedback, or where Council need occurs.

7. TRAINING

Council is committed to supporting Employees in complying with this Policy/Procedure. Training will be developed by the Responsible Officer in consultation with the Training Advisor.

Training needs will be reviewed, as necessary, in consideration of any changes to legislation, relevant standards, codes and guidelines, audit findings or corrective actions/controls arising from risk assessments/ hazard or incident reports.

8. RECORDS

Records shall be maintained as required by Council's Records Management Policy (PO063) and relevant legislation.

9. RELATED COUNCIL POLICIES/PROCEDURES AND DOCUMENTS

PO056 Council Infrastructure Policy
PO057 Community Engagement Policy
PO091 Enterprise Risk Management Policy
PO128 Asset Management Policy

10. REFERENCES AND LEGISLATION

State Planning Policies
Local Nuisance and Litter Control Act 2016
Planning and Design Code

11. COUNCIL DELEGATION

Any applicable delegations are available on Councils website via the Delegations register via <https://yorke.sa.gov.au/about-us/forms-plans-and-publications/registers/>

12. VERSION HISTORY

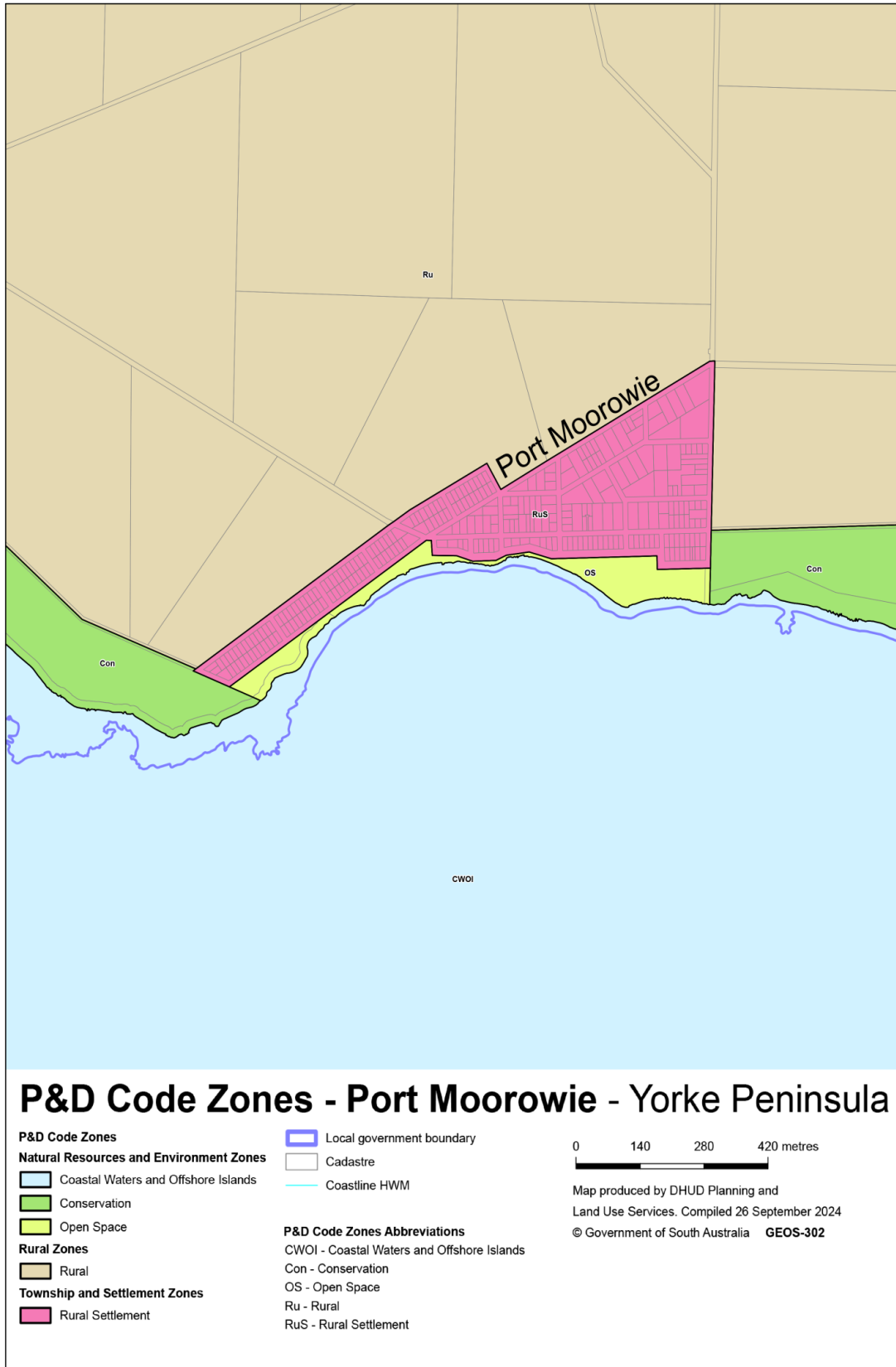
Version No	Issue Date	Description of Change

DRAFT

ATTACHMENT 1: DEFINITIONS

Term/Reference	Definition
Designated area of Port Moorowie township	The area which is designated by the Planning and Development Code Zones (Attachment 2: Map P&D Code Zones – Port Moorowie – Yorke Peninsula) as the Rural Settlement and Open Space zones.
Correlated Colour Temperature (CCT)	A specification of the colour appearance of the light emitted by the lamp, relating its colour to the colour of light from a reference source when heated to a particular temperature, measured in degrees Kelvin (K).
Fully shielded	An outdoor public light fixture designated so that the installed fixture emits no light above the horizontal plane of the lowest part of the fixture.
Light pollution	Any adverse effect of non-natural light sources on the night sky.
Light source	The part of a lighting fixture that produces light, eg the bulb.
Luminaire/ies	A complete electric light unit.

ATTACHMENT 2: MAP P&D CODE ZONES – PORT MOOROWIE – YORKE PENINSULA





PORT MOOROWIE WHALER

Email: thefopm@gmail.com

Issue number: 82

August 2024

PO Box 189 Yorketown 5576

Editor: Jo Daniels-Wilson

DarkSky International

We are very fortunate in Port Moorowie to have very limited artificial light impacting on our environment and we would like your opinion on how this should proceed into the future.

A request has been made that Port Moorowie become a designated dark sky. We have approached the Yorke Peninsula Council and whilst more information will need to be provided in the future, they are, in general, in agreement with this proposal.

Background Information

According to the definitions of the International DarkSky Association, there are 5 categories and Port Moorowie would fit into the DarkSky Community.

Currently there is only one other DarkSky Community in Australia and that is in Carrickalinga on South Australia's Fleurieu Peninsula. They will now serve as a model for others to follow. The following is an excerpt from their association.

'The township, home to over 400 permanent residents, swells significantly in population during holiday seasons due to its stunning natural attractions, not least of which is the night sky. Its geographical position, distanced from the major city lights of Adelaide by a range of hills, along with sparse streetlights, has always favoured starry nights, making it a perfect candidate for such recognition.'

Carrickalinga's geographical characteristics feature an alluvial coastal strip, noted for its white sandy dunes, clear water and abundant marine life, which includes the Leafy Seadragon, South Australia's marine emblem. This region also serves as a habitat for diverse wildlife, from birds and lizards to dolphins, which also enhances its ecological importance.'
(Printed with permission)

What is a DarkSky Community?

A DarkSky Community is a town, city, municipality, or other legally organised community that has shown exceptional dedication to the preservation of the night sky through the implementation of a quality outdoor lighting ordinance, dark sky education and citizen support of dark skies.

Town Speed Limit



It is not a choice to travel at speeds above 30 kph but rather than obligation to travel no higher than 30 kph so please observe our speed limit for the safety of both humans and animals.



Photo courtesy of: Adam Meyer (AdBe Photography)

There are many potential benefits to be found by becoming a DarkSky Community and we need to understand and appreciate each one of them singly and collectively to realise why we should pursue this idea.

Potential Benefits to Pt Moorowie & the Peninsula

- **Can attract more visitors**
- **Can bring economic benefits** to surrounding communities through increased customers for local businesses, some visitors coming to stay and people taking advantage of accommodation.
- **Enables the dark sky to get darker**

What are the personal benefits of a DarkSky Community?

- **Stargazing can be a stress reliever**
- **Stargazing can make you kinder** - it is easy to lose sight of the idea that the world is, in fact, a very large place and outside of our very hectic lives we often don't understand how small we are in the grand scheme of things.
- **Stargazing can boost your creativity** – a dark night sky is a magical place to let your imagination run wild.
- **Stargazing helps you sleep better** – artificial light can upset your circadian rhythm.
- **Stargazing can inspire adventure** – you may wish to travel the country or the world to search out other dark skies.
- **Stargazing can connect you to nature** – it can help you to become more aware of your place in the natural world.

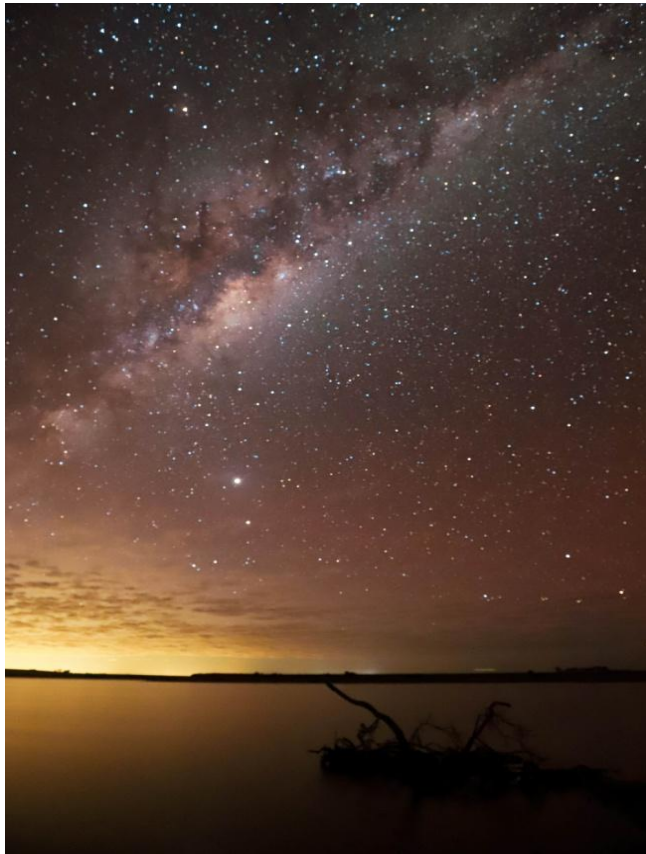


Photo courtesy of: Adam Meyer (AdBe Photography)

Why is darkness necessary?

- **Darkness is vital** to humans and animals – humans can protect themselves from harmful light but animals do not have this possibility. There are enormous benefits ecologically as well as to wildlife,
- **You sleep better** – Melatonin, the main sleep-producing hormone in humans, is produced in large quantities only at night and in the dark.

- **Animals find food at night** – if animals do not dare to search for food at the right time the population will shrink and they will eventually disappear altogether.
- **Your body clock keeps in time** – steady light all the time is not good for humans and too much artificial light means that your body clock will not receive vital messages about the time of day thus making it more difficult to eventually fall asleep.
- **Plants anticipate the arrival of winter** – they require darkness to structure the rhythm of their vital functions.
- **Darkness protects the environment** – it is a dwindling resource due to the amount of artificial light so darkness threatens to disappear from the world. Pleasant lighting needs a strong contrast with darkness for the beautiful city lights to stand out.

There appears to be a lot of scientific proof that there will be endless benefits to the town of Port Moorowie, to the Yorke Peninsula Council, to humans, to animals as well as to sea creatures if we were to go down the path of dedicating Port Moorowie as a '**DarkSky Community**'.

Please think carefully about the benefits not only to the current residents/landowners of Port Moorowie but also to future generations so that the best outcome can be achieved.

We wish to know your thoughts about this initiative by 5 September so please take the time to communicate with us in either of the following ways:

- a) **Email:** fifidaniels@optusnet.com.au
- b) **Telephone or SMS:** 0411 072 836 (Jo)
- c) **Send a letter:** PO Box 189
YORKETOWN 5576

I have been in contact with the main initiator for the Carrickalinga dedication and, if and when required, she is willing to assist us in our path forward.

Photo Gallery

.....because every picture tells a story



The relatively new disability-friendly beach shelter at Point Gilbert is open to westerly winds so now protection has been provided to make it more comfortable for people making use of it. **We ask that you please remove your rubbish when you leave.**

Cars can be driven up to the seating area to make easy access, particularly for wheelchairs.

Community News – Yorketown Community Library

CRAFT GROUP



Do you love to Craft?

**Monday/Tuesday mornings
10.00 am – 12.00 noon**

Free to attend.

Tea/Coffee provided.

More information: 8852 1647

BOOK CLUB



Ready to dive into amazing stories?

**Wednesday afternoons
1.30 pm – 3.00 pm**

Share a book – discover new books. Afternoon Tea

More information: 8852 1647



Recycling Centre – Camperdown Terrace

Please note: **THIS IS NOT A RUBBISH DUMP**



With the Easter and school holidays fast approaching we ask that you be considerate towards our volunteers.

Our recycling centre is only for bottles and cans which are marked 10c SA deposit. We cannot recycle cardboard boxes, wine/spirit bottles, milk bottles or cartons, paper, jam tins, magazines, etc

Please be community minded and if you create waste take it away with you or arrange to use neighbours' bins ready for weekly/fortnightly and/or monthly collection.

Dark Sky Community

Our proposal to become a Dark Sky Community has seen us spend many hours gathering information, reviewing the policy and speaking with the representatives of the Carrickalinga success story.

We have also listened to the many positive comments from you as well as the concerns which have been expressed.

Based on all of the above, we decided at the last Committee Meeting to press on with our desire to preserve the Dark Sky at Port Moorowie but not in an official capacity through the International DarkSky Association (IDA) which has some stringent conditions and on-going commitments which we cannot guarantee that we can fulfil.

We will, however, approach the Yorke Peninsula Council to hopefully develop a Dark Sky Lighting Policy for our township as a vast number of people have indicated that they appreciate the unique quality of night sky that we enjoy and do not want it impacted by artificial light.

Signs will be installed in the BBQ shelter at Periwinkle Reef and the Information Bay indicating what we, as individuals, can do to contribute to a dark sky and why we should be protecting it.

We appreciate that not everyone will be on board but in this day of ever increasing climate change which is vastly impacting wildlife, sea mammals and plants as

well as human life we feel strongly that we all have a responsibility to the planet to leave it in a better place than it currently is. Future generations deserve to have a more environmentally sustainable world and we can all do our part to make this a reality.

Jo Daniels-Wilson – Chairperson

What impact is light pollution causing?



Birds that migrate or hunt at night navigate by moonlight and starlight. Artificial light can cause them to wander off course and toward the dangerous night time landscapes of cities. Every year millions of birds die colliding with needlessly illuminated buildings and towers. Migratory birds depend on cues from properly timed seasonal schedules. Artificial lights can cause them to migrate too early or too late and miss ideal climate conditions for nesting, foraging, and other behaviours.



A hatchling loggerhead sea turtle turns inland following human-made lights instead of seaward toward safety.



Light pollution is among many factors driving a potentially catastrophic decline in some of the world's insect populations. That threat is obvious to anyone who has witnessed moths and other nocturnal insects swarming around bright outdoor lights. If you have insects fluttering around a street light all night, they're depleting their energy reserves to the point of exhaustion, increasing exposure to predators and potentially missing courtship cues from mates.

Bringing back the dark!

The good news is that addressing light pollution has a clear and immediate impact. As soon as you turn that light off, the pollutant disappears from the environment, and species can begin to return.

What's in a Name?

BOOBOROWIE – an aboriginal word meaning 'round waterhole'

COOBOWIE – an aboriginal word meaning 'wild fowl on the water'

CURRAMULKA – an aboriginal word meaning 'a waterhole where emus drink'

KADINA – an aboriginal word meaning 'lizard plain'

MINLATON – from Minlacowie, meaning 'fresh water well'

TIDDY WIDDY BEACH – from an aboriginal word meaning 'bartering place' due to the fact that the Kurna and Narangga tribes traded in the area

WAROOKA – an aboriginal word meaning 'muddy waterhole'



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Friends of Port Moorowie

Acknowledgment of Thanks

We must express our sincere thanks to *Fraser Ellis MP, Member for Narungga*, who has so generously agreed to print our editions of the Whaler.

PRESERVING PORT MOOROWIE'S DARK SKY

Port Moorowie is extremely fortunate and incredibly unique in that our small township has very limited outdoor public lighting. Only two lights can be observed at night, one at the boat ramp and the other at the Troubridge Hill Lighthouse.

Port Moorowie Boat Ramp Light

Whilst wishing to preserve the night sky we also need to consider safety and this light is a necessity for our boating fraternity. The current light is a LED 20 watt which is equivalent to 1600-2600 lumens. Due to the fact that it is a shielded light, which faces downwards, it does not have any impact on our night sky.

Troubridge Hill Lighthouse

This is our only other night light designed to emit a powerful light visible over long distances, guiding ships to safe routes and warning them of potential hazards such as reefs, sandbanks and rocky shores. This lighthouse is 15.6 kms (via Clan Ranald Road & New Honiton Road) **or** 26.4 kms (via Troubridge Road & New Honiton Road) from Port Moorowie. The straight line distance is 12.39 kms.



Boat ramp light

Photo: Courtesy of Jan Radford



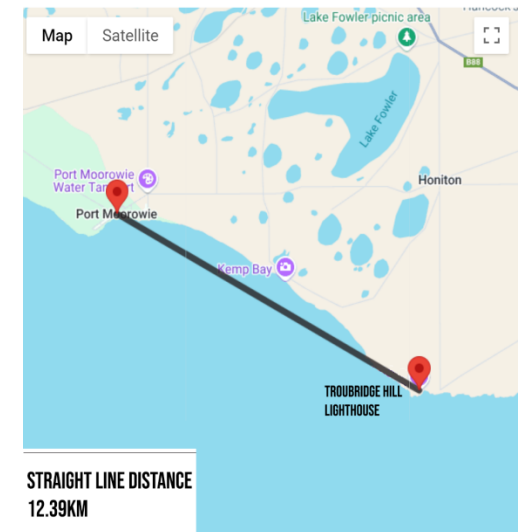
Troubridge Hill Lighthouse

Photo: Courtesy of Adam Meyer



Distance via Troubridge/New Honiton Roads

= 26.4 kms



Straight line distance

= 12.39 kms

It is the outdoor public lighting that appears to be having the greatest effect on reducing the quality of the darkness of the night sky and as a result having a detrimental effect on humans, animals, plants & sea creatures.

OUR ANCESTORS AND THE NIGHT SKY?

Until recently, our ancestors experienced a sky brimming with stars – a night sky that inspired science, religion, philosophy, art and literature including some of Shakespeare’s most famous sonnets and also Vincent Van Gogh’s painting ‘The Starry Night’.

Our First Nations Peoples (Aboriginal & Torres Strait Islanders) were the very first astronomers.

The observation and use of the night sky by First Nations people has taken place for thousands of years even preceding places like Greece and Egypt, considered to be the birthplace of astronomy. One of the most notable differences of Indigenous astronomy is the way they recorded, documented and communicated discoveries, knowledge and understanding and passed on observations and knowledge of the night sky through oral traditions – song, dance, stories and art. They developed a comprehensive knowledge of understanding of the solar system and its celestial bodies – the sun and moon, and planets visible to the naked eye.



The sun, the moon and the stars have been taken in or around Port Moorowie.

Photo: Courtesy of: Jan Radford



Photo: Courtesy of Adam Meyer (AdBe Photography)



Photo: Courtesy of Adam Meyer (AdBe Photography)

The stars are the homes of their spiritual ancestors, animals, planets and spirits and they serve as calendars, a law book and also inform all aspects of daily life and culture. The Nharangga people certainly had an advantage considering the unique dark skies in Port Moorowie.

WHAT CAN INDIVIDUALS DO TO PRESERVE THE NIGHT SKY?

Light pollution is caused by the misuse or overuse of outdoor lighting diminishing our ability to view the stars and celestial bodies, It impacts human health, disrupts ecological functions, creates safety issues for humans, wastes energy and becomes quite expensive.

Light pollution can travel up to 200 km away from its source so therefore changes we make at home can help protect the night skies in our local community. Luckily, light pollution and its impacts on people, wildlife and night skies can be quickly reversed. and you can start right at your own home. Collectively, we can make small changes to make a big impact on the protection of our shared night sky.


You can start right at home by following this six-step process:



Protecting the night sky starts with YOU!

- 1 Light only what you need**

- 2 Use energy efficient bulbs and only as bright as you need**

- 3 Shield lights and direct them down**

- 4 Only use light when you need it**

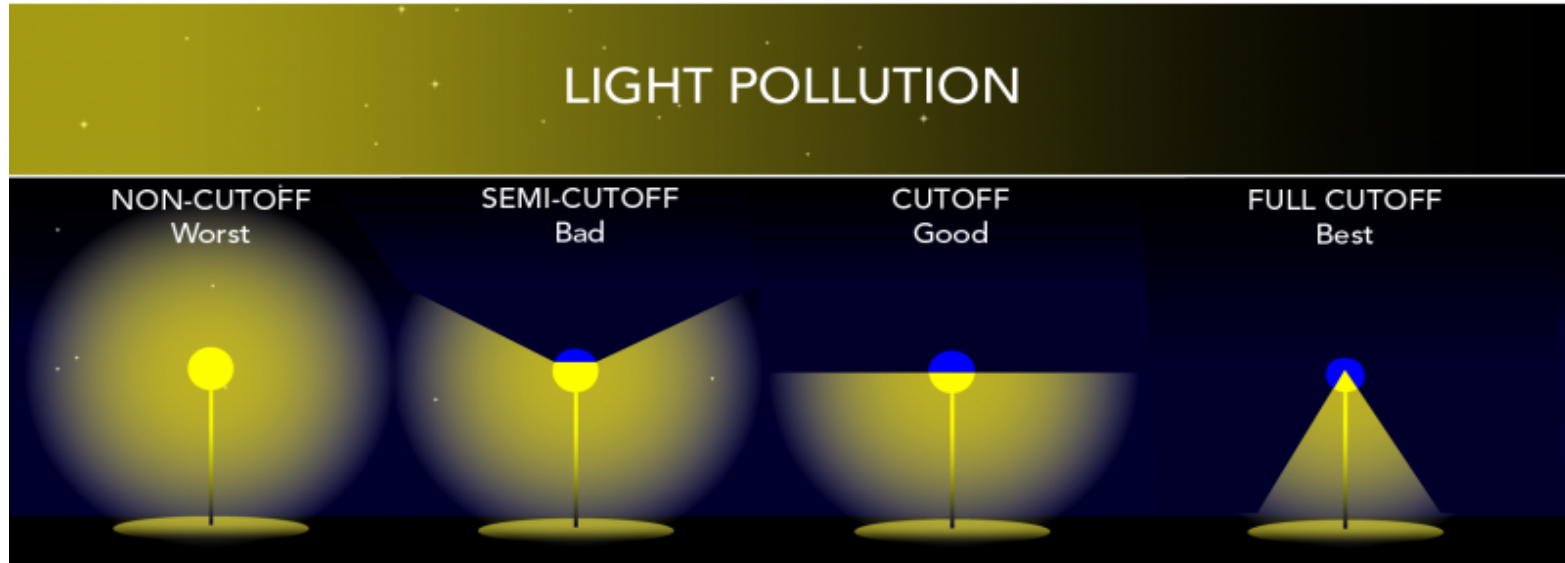
- 5 Choose warm white light bulbs**

- 6 Join IDA!**
We need your help to continue the fight against light pollution.


Printed with permission: International Dark Sky Association

Consider using: Fully Shielded Fixtures, Low Glare Lighting, Warm Colour Globes, Directional Lighting, Energy Efficiency Globes, Timed or Motion-Activated Lighting and Smart Lighting Controls

WHAT IS CONSIDERED NIGHT SKY FRIENDLY LIGHTING?



Printed with permission: Let's Talk Science (Canada)

A DARK SKY DOES NOT MEAN A DARK GROUND

By adopting night sky-friendly lighting practices and technologies, communities can mitigate the adverse effects of light pollution on human health, wildlife, and ecosystems, while preserving the beauty and wonder of the natural night sky for future generations.

WHAT ARE THE BENEFITS OF PRESERVING THE NIGHT SKY?

Humans

1. **Stargazing can be a stress reliever** – it helps individuals to slow down and appreciate the enormity and beauty of the universe.
2. **Stargazing can connect you to nature** – when you gaze up at the Milky Way, you may feel a sense of humility at the immensity of the universe and a night sky full of twinkling stars can also help you become more aware of your place in the natural world.
3. **Your body clock keeps in time** – steady light, particularly blue light, all the time is not good for humans as your body clock will not receive vital messages about the time of day, making it more difficult to fall asleep. It has been found that irregular body clocks have been linked to many diseases such as hypertension (high blood pressure), type 2 diabetes, depression and asthma.

Animals/Plants

1. **Animals find food at night** – the circadian rhythm allows animals to move, reproduce, find food and protect themselves from predators. If the animals do not dare to search for food at the right time, the population will shrink and they will eventually disappear completely. Too much light can even disturb aquatic organisms.
2. **Plants anticipate the arrival of winter** – plants also require darkness to structure the rhythm of their vital functions.

Environment

1. **Darkness protects the environment** – darkness is a dwindling resource due to the amount of artificial light so darkness threatens to disappear from the world.
2. Darkness is often considered to be something scary and bad but we need to remind ourselves that darkness helps to protect the environment and improve human health.
3. There are biological differences in people's tolerance to seasonal darkness and some people are more susceptible to **seasonal affective disorder (SAD)** than others but natural darkness can be a very empowering experience.
4. There also needs to be a variation of light and darkness in cities for aesthetic reasons – pleasant lighting needs a strong contrast with darkness for the beautiful lights to stand out.

Health Effects of Light Pollution

Humans

- ★ Interferes with melatonin production which regulates daily cycle of systemic activities
- ★ Glare reduces contrast sensitivity, and color perception

Birds

- ★ Artificial lights can cause migrating birds to wander off course and never reach their natural destination

Reptiles

- ★ Decrease in mating, resulting in diminished populations
- ★ Increased vulnerability to natural predators and unusual ones like cars and humans

Mammals

- ★ Difficulty foraging for food due to too much light
- ★ Exposure to predators that would otherwise be unable to see them

Amphibians

- ★ A decrease in reproduction, resulting in lower populations
- ★ Confusion of natural instincts that protect against predators

References

Chesniuk, Ron. "Missing the Dark: Health Effects of Light Pollution," *Environmental Health Perspectives* Volume 117, Number 1, January 2009