

# PROPOSAL TO WICKEPIN TOWNSCAPE COMMITTEE

## ASTROTOURISM

January 28<sup>th</sup> saw me contact Mr. Bok Ho from Department of Biodiversity, Conversation & Attractions inquiring about my idea on establishing a facility for Astrotourism here in Wickepin.

The location I seek is at the highest point for the region, our water tank, some 5 km out of town. The tank & surrounds sits 440 m above sea level & affords a horizon up to 50 km away

Attached emails show that the proposed area is covered by 2 reserves, one the Waterboard, the other an unnamed reserve.

Recently I accompanied Gary Rasmussen Wickepin Works Manager to the area to see if he perceived any problems, firstly in upgrading the picturesque track to the summit & then clearing an area facing the East where tourists & serious observers could gather.

Neither Gary nor I could see any problems with the road or the ridge/plateau area. I would see the larger trees maintained along the plateau but large areas cleared for visitors to set up equipment for viewing. I well understand that clearing permits need to be obtained.

I see the area becoming not only Astro friendly but also Eco. To the north of the plateau area is some granite outcrops which lends itself to the development of a Nature Walk.

Two properties backing on to the area I believe are held by Councilors' Russell & Landsell so if a crowd is anticipated then perhaps camping facilities can be negotiated?

Bok put me in touch with Greg Durrell, DBCA Narrogin, the Regional Manager. He sees no problem with the proposal. Brian Hancock from Water Corp manages this government asset. He is aware of my proposal but I have not gone further because next steps need to be accepted & approved by Townscape Committee & Wickepin Council.

My research uncovered Sandra Mata, Project Officer UWA Future Farm 2050 who along with her Colleague, Professor Peter Klinken Chief Scientist WA is setting up this Astrotourism Trail, starting in Exmouth, then on to Carnarvon the Carnamah finishing at Pingelly. UWA would be delighted to add Wickepin to this project. I have spoken to Trevor Keates of Pingelly & he sees Wickepin dovetailing in with them as they are seemingly mainly a closed facility for Telescopes.

Other sites I feel sure will be mentioned like a gravel pit to the south but it has no panoramic aspect & I feel that Wickepin needs something out of the ordinary to attract tourism. One could even say the oval would do.

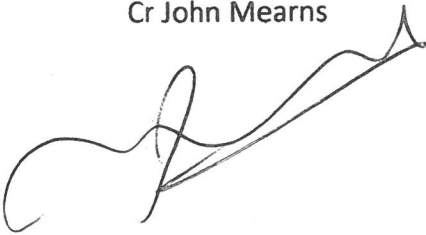
Griffin University is also very interested in studying our water tank as it seems rather unique.

I have worked as both Construction & Project Manager on several jobs with budgets up to \$250 million. I am not daunted by such a task & would be very happy to be heavily involved.

Earlier in the year ABC Landline featured a story on Astrotourism & in their research did surveys with the likes of German tourists who were asked why they chose WA to visit. The major reason was "to go bush & see the stars" . So bad is the light pollution they do not see stars very often.

Please feel free to ask me any questions. I feel very passionate about this project.

Cr John Mearns

A handwritten signature in black ink, appearing to read 'John Mearns', with a stylized flourish at the end.

CR JOHN MEARNNS

03/03/2020

Notes made by Sandra Mata, Project Officer UWA Future Farm 2050 from attendance at FACET below.

Sandra.mata@uwa.edu.au

They are rough notes only so please contact speakers for further info about their area.

## FACET: Forum Advocating Cultural and Eco-Tourism

### Astrotourism Workshop: Dept Biodiversity, Conservation and

### Attractions, Kensington 2/9/19

### Spring into Parks

Prof Peter Klinken Opened	Chief Scientist WA	Overview of WA's place in the World of Astronomy and Space Science - a tourist hotspot and why
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Ancient to modern: oldest rocks & fossils (stromatolites, Ab culture, 40000 yr old campfire site Marg River, Devils Lair, rock art)

Biodiversity hotspots: At end of whaling, only 300 – 600 Humpback whales were left. Now 30000 – 60000 up/down WA coast, showing recovery is possible if we make the changes.

Our climate: dry and clear, low light and humidity, low radio interference. All good for astronomy.

Astronomy uses light spectrum and radio wave spectrum to see into space. Square km array project aims to look back into time – to the big bang.

Largest research super computer in S hemisphere based in Perth. The vol of data it processes is equal to the total vol of data on the internet currently. European Space Agency have presence in New Norcia for their Deep Space Mission; NASA tracking Appollo Missions use Carnarvon Dish; International Space Agency are aiming to go back to moon in 2025 using remote operations. Have linked to WA mining companies for their expertise in remote controlled operations. WA likely to become the world centre for remote operations. Pilbara = the Mars landscape so a good place to play with vehicles/systems etc.

Woodside have a collaborative innovation project with NASA. There are only 8 "Robonaut" robots in world and we have one arrived to the Woodside Building in 2016. Robotics on oil and gas rigs provides exchange of expertise. <https://www.youtube.com/watch?v=q4Lsm6i90tk>

Carol Redford – ask Carol first!	Founder Astrotourism WA & Stargazer's club WA. Co-chair of Astronomy WA	WA's pathway to the stars How WA will become the stargazing capital of the world.
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2 Billion people cannot see Milky Way due to light pollution, which is increasing 2% every year and +2% in brightness due to LED white/bluelight use. 4 Billion people have never set foot on soil/Earth as cities are so big. In S hemisphere – we can see into the Magelenic clouds, the core of the MWay. Perth is the most isolated city in continent. 0.25% of population in small area, air pollution is low and air is dry. Perfect for astronomy world centre.

Astrotourism Towns attract local and international visitors

Building Better Regions funding

Aboriginal Astronomy

Astrophotography hotspot

- WA currently has 6000 people waiting for somewhere to go.

#### Observing sites

All local lights need to point downwards to shield skies

Need 'Red light' spectrum using Yellow light 3000° k light + shield

Western Power is transitioning WA LED spectrum street lighting over next 3 years across the state. Currently 9 Local Govs has chosen to protect night skies.

By 2020 Approval Process for lights – Dark Sky Protection comes into play.

Currently External funding is available for Pilot Towns which requires a Light audit on town, (ABC Landline apparently did one with school science kids getting involved in their town).

*Lonely Planet Travel* reports people's top 10 Travel Plans now include astrotourism.

Geraldton: 3 tours per week. 100+ overnight stays, tour companies want to add more.

Strategic Plan is needed for 2019 to 2023 for hybrid solar eclipse.

String of Diamonds effect lasting 1min 15 sec, on 20/4/2023.

In Chile, the total solar eclipse took local community of 1000 to 25,000 people involving cruise ships, accommodation, water, toilets, food, world media, cash ATM's, traffic control . . .

Hybrid Eclipse will be seen from Exmouth, Barrow Island. Rest on water. But will spark huge interest in WA

astrotourism.			
<b>Ryan Mossny Owner</b>	<b>Two Feet &amp; a Heartbeat Tours 0433 328 717 <a href="mailto:ryanm@twofeet.com.au">ryanm@twofeet.com.au</a> <a href="http://www.twofeet.com.au">www.twofeet.com.au</a></b>	<b>FACET Chair and Ambassador for WA Parks Foundatoin.</b>	<b>Walking tours of Perth – great ideas! Walking/Driving/Treasure Hunt tours Pingelly?</b>
<b>Leslee Holmes</b>	<b>President Shire of Dandaragan Member WDC</b>	<b>Developing Astrotourism in the Wheatbelt.</b>	
<p>4 yrs ago attended Jurien Bay Chambers Tourism assessment.  Advice: Sell region to yourself – re-energize your town.  It's not always obvious. Simple things can be simple eg adopting turquoise paint for the Turquoise Coast!  Can you get a coffee after 4pm?  Small towns can be sexy . . .  Astrotourism = visitor economy  On-sell the journey – what are your neighbouring town's offering? How do add value to the tourist journey  and keep them in your area generally? Rural WA does not tend to 'on sell' the journey for its visitors.  PACKAGE astrotourism with ACCOMMODATION and TRANSPORT and places to see in daylight and activities  to do.  Perth – use astronomical travel agencies  Shire of Dandaragan – Indigenous people collaboration with tourism. WA is very far behind eastern states  with this.  Look at Pinnacles Ranger Programs  Aboriginal Astronomy was FIRST ASTRONOMY.  The Lobster Shack at Cervantes gets 700 visitors per day – people want more things to do. They want a  unique and real experience.  Thompson Family purchased Pinnacles Back Packer and did a complete revamp and now offer backpacker,  groups, cyclists, retirees, singles, large groups, business meetings . . .  Also Eco Camping/glamping at Marg River.</p>			
<b>Karen Morissey OAM</b>	<b>Councillor Shire Mt Magnet, Murchison Region (7 Shires in Midwest)</b>	<b>Founder Astro Rocks Festival merging Astro and Geotourism</b>	<b>Astrotourism and Geotourism – the connection and progress in the Murchison.</b>
<p>22 Geosites – some mining pathways – connect as Geotrail  Astro –Geo Connection via Meteor crater. Gold is believed to be formed from collision of neutron stars.  Visitors include Japanese, South Koreans, to Sandstone Astrodome. 100 years of astronomical interest.  2019 Mt Magnet AstroRocks Fest: Astro Fest is Friday 20<sup>th</sup> September; Rocks Fest is Sat 21<sup>st</sup> and Sun 22<sup>nd</sup>  Celebrating night sky and ancient rocks.</p>			
<b>Rick Tonello</b>	<b>Senior Astonomer Gin Gin Gravity Discovery Centre &amp; Observatory</b>	<b>Guardians of the Night – Creating WA's first Dark Sky Reserve</b>	
<p>Skies cover 3 nature reserves across Two Rocks and Wanneroo.  Pingelly has Dryandra and Boyagin reserves. Dark also needed for biodiversity/breeding cycles.</p>			
<b>Greg Quicke</b>	<b>Astro Tours Broome</b>	<b>Perspectives from an Astro Tour Guide</b>	
<p>Uses Tidal lagoon – always changing due to phase of Moon – great starting point for talks!  Greg was Pearl Diver by trade and could read Moon for tides back then. Started tours in 1995. Within 2  weeks he was having tours 7 nights/week!  Weather is good and night time temps good. Infringement of light pollution over last 20 years becoming a  problem.  Now doing 3 x week with bigger groups. Has 25 telescopes. And does live stargazing with Professor Brian  Cox. Demand is there.</p>			

Spent 4 summers on Rottnest during his Broome wet season.

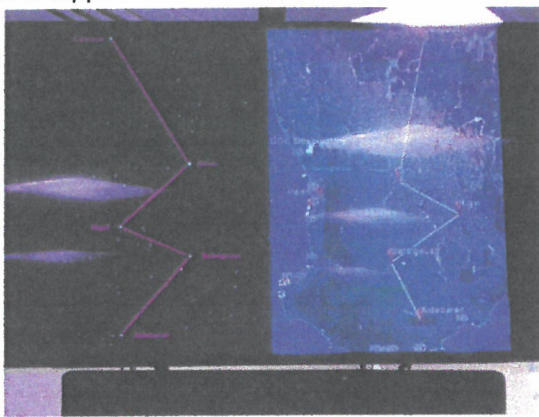
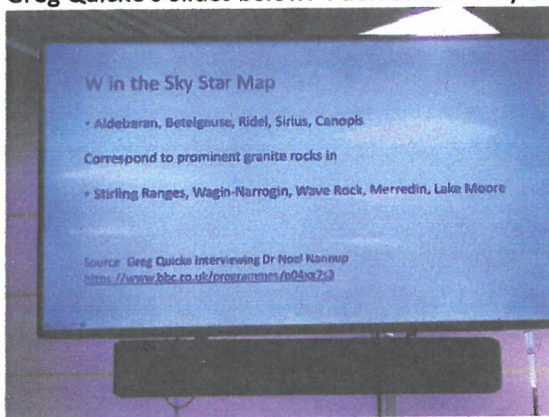
Problems with Rotto: Day trippers go home; Boat people don't get off their boats; regulars who go every year do stargazing once but don't repeat and SW wind is VERY COLD at night so advice is to think about your town/weather/wind etc and analyse what would work! Comfort is a MAJOR FACTOR for success. Greg uses a Sea Container and operates telescopes from there.

Demographics – he gets all types. Just need a spark in the eye!

Astrotourist.net

Get Business knowledge – do volunteer program tour leading – engage astronomy/physics students who come with expert knowledge!

Greg Quicke's Slides below: I don't know why the W is flipped – I will have to ask him!



<b>Matthew Woods</b>	<b>Tour Administrator The Perth Observatory</b>	<b>Sir John Forrest funded observatory</b>	<b>Live-Streaming Astronomical Events</b>
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Originally set up to provide 'TIME' for Perth, weather, surveyors and navigation. Public Viewing using Calver Telescope 1910 to see Halley's comet, then Wallal Expedition and then to Prove Einstein's Theory of Relativity in 1922, Sun's gravity bending star light (he was right!)

1963 Dome demolished. Moved to Bickley.

Hamburg 24000 Stars Meridian - International Planetary Patrol Program 43% of images are from Perth Co-discovery of Uranus's rings, Comet Halley Rotation = 20 years and cyanide jets.

Night tours re-started, Lowell Telescope automated.

POVG Founding Members (volunteers) now 120 members doing nights, school tours and maintenance.

The Bomb Shell – Square km array (2015)

2016 10 yr commercial agreement. Public exclusive night tours, star adoptions, Guided day tours, public talks, astronomy 101 course

RCOP Telescope/ COMSPOC = Space junk!

Science Premiers' Award, Live streaming – twitch, mixer, youtube, Universe today - virtual star parties, Live streaming The Blue Blood Moon May 1.8M people watched, June 3.4 M people watched.

<b>Pete Wheeler</b>	<b>ICRAR UWA International Centre for Radio Astronomy Research.</b>	<b>Square Kilometre Array (SKA) and WA – From a State with space to the Space State</b>
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Radio waves need different telescopes to scan different wavelengths Oz = SKA Low. 1 square km = collecting area to see first star and their galaxies.

Need extreme radio quiet = radio quiet zone = NO VISITORS!

36 dishes SKA Pathfinder and Wide Field Array (MWA) /'Spiders'

Brain gain for WA science. 170 experts – so teaching outreach in schools, universities, Training opportunities etc is very good.


Super Tech computing centre providing local industry with new tech and designs.

Astrofest + Astrofest Photography competition all VERY POPULAR

<b>Robert Hollow</b>	<b>CSIRO Astronomy &amp; Space Science, Educ &amp; outreach</b>	<b>Astrotourism – National and international perspectives</b>
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	<b>specialist</b>		
<p>AstroT is a diverse historical event. Location and dark sky are paramount. Cultural significance to Aboriginals.</p> <p>Planned events and incidentals eg solar eclipses, Aurora Comets, meteor showers, open days, space launch provide opportunities.</p> <p>Parkes Open Day 20000 people over 2 days on Appollo 11 Anniversary.</p> <p>Historical sites eg Galileo, meteorite collection UWA Museum, Visitor Centres</p> <p>Astronomy Town in China 300 000 people per year; 100 000 people per year to Parkes and 64 000 to Canberra sites/year.</p> <p>Outback Sky Journeys</p> <p>Andalucia – very good</p> <p>Lake Tekapo NZ</p> <p>Multilingual Websites</p> <p>Chile AstroT Wesbsites are the BEST.</p> <p>Optical and radio options, excellent telescopes/observatories, a working observatory 3840 visitors in 2018. 40/group over w/e's only.</p> <p><b>For Development</b></p> <p>Look at UN Sustainability Goals (UWA link to Prof Fiona Haslem Mackenzie – Centre for Regional Development?)</p>			
<b>Anthony Hayes</b>	<b>Exec Direc Markets and Partnerships, Tourism WA</b>	<b>WA Tourism</b>	<b>Preparing for an Astrotourism Event</b>
<p>Ex AATKings - Stargazing Uluru through western and indigenous eyes.</p> <p>Brand WA!</p> <p>International visitors and National/interstate visitors to Perth are all looking for things to do.</p> <p>12000 came to Perth for Bledisloe Cup!</p> <p>Develop Events and destinations = regional dispersal and jobs</p> <p>2023 – Commercial perspective – MASSIVE GLOBAL EVENT. Whole of Gov RESPONSE. Listen to Experts: Logistics Safety, traffic, port-a-loos, marketing, accommodation, cruise ships, food, souvenirs, add-on experiences all provide opportunities for regional towns.</p> <p>11 international offices</p> <ul style="list-style-type: none"> <li>- Key distribution partners for websites, retail and online opportunities.</li> <li>- They want Partnerships with regional Tourism organisations</li> <li>- Website and social media</li> <li>- Cater for families – travel agents, media, wine and dine</li> <li>- Events</li> <li>- The key - everyone needs to make money!</li> </ul>			
<b>Pat Forster, Quilter</b>	<b>Mt Magnet Astro Rocks Fest Quilting Project</b> <b>Mmquiltproject@gmail.com</b>		
<p>Better appreciation of Ab history and arts, landscapes eg significance of rocky outcrops</p> <p>Song Lines were made from Creator Beings. Stirling Ranges, Wave Rock, the W in the night sky star map joined places together.</p> <p>Telling stories in sequence, singing songs and dance provide navigation in sky and on ground - star maps, sand maps, rock art, body paint, water holes all navigated via song lines (vast distanes). 1000km journeys, Bluff Knoll and Red rock outcrops between Stirling Ranges and Fitzgerald Ranges, Stirling Ranges, Wagin, Narrogin, Wave Rock, Merredin, Lake Moore. Wave Rock Dreaming Creation Narrative for Milky Way.</p> <p>Quilts based on images from these places and stories.</p> <p>Eg Seven Sisters song line – Roebourne WA, East to Canning Stock Route N, and SE in SA. &amp; Wave Rock Dreaming Creation Narrative for Milky Way</p> <p>Night sky objects: Dreaming and Creation Narratives. Moral behaviour Narratives. Seasonal indicators, eg Emu egg laying</p> <p>In 2017 International Astronomical Union recognised First People's knowledge of astronomy.</p>			



<p><b>Francisco Dousdebes</b></p>		<p>Tours to the Galapagos has added Astronomy to entertain at night. Huge success.</p>	
<p><b>Maitland Hill Pingelly/Dwellingup</b></p>	<p><b>Karak Dreaming Maitlands Cultural Tours</b>  <a href="http://www.kaarakdreaming.com.au">www.kaarakdreaming.com.au</a>            0498 853 544  <a href="mailto:cultural@kaarakdreaming.com.au">cultural@kaarakdreaming.com.au</a></p>	<p>Maitland gave an Aboriginal perspective of the night sky and dreamtime stories and how he was developing opportunities to develop Aboriginal cultural tours within his business including Noongar Astronomy.</p> 	
<p><b>Prof Ross Dowling, OAM, Vice President of Geoparks WA &amp; WA Parks Foundation ambassador.</b></p>		<p><b>Astron &amp; Geotourism</b></p>	<p><b>Did not attend</b></p>
<p><b>Penny Griffin DPIRD Infrastructure/connectivity</b></p>	<p><a href="mailto:Penny.griffin@dpird.wa.gov.au">Penny.griffin@dpird.wa.gov.au</a>            0434 327 037            6552 2170</p>	<p><b>Hobby astronomer</b>            Penny was consulting with State Gov for response to Hybrid Eclipse 2023 at the time of this meeting.</p>	

