

Nullarbor Update February 2025

By Stefan and Bronwen Eberhard

Referral of the Western 'Green' Energy Hub for assessment under the EPBC Act

On 23rd January, just before the long weekend, the colossal hydrogen-ammonia energy export hub proposed for the Western Australian side of the Nullarbor Plain was referred to the Commonwealth Department of Environment and Water for assessment under the Environmental Protection and Biodiversity Conservation Act (EPBC Act).

The opportunity for public comment under the Commonwealth EPBC Act is the first step in a multi-step assessment process. The 10-day public comment period, which closed 7th February 2025, invited submissions as to whether the project is a 'controlled action' that needs to be assessed by the Federal Minister for Environment and Water. This federal government assessment process runs separately alongside the West Australian state government process which was referred to the WA EPA in November 2024 (see previous ACKMA Journal 137).

The federal process is more restrictive in the sense that the environmental values which are eligible for assessment under the EPBC Act are limited to Matters of National Environmental Significance (MNES). The referral is a 'controlled action' because the proposed energy hub interacts with MNES.

The MNES relevant to the Nullarbor includes World Heritage properties, National Heritage places, nationally threatened species and ecological communities, migratory species, Commonwealth marine areas.

The Referral and attached documents can be viewed / downloaded from the EPBC Act Public Portal link:

<https://epbcpublicportal.environment.gov.au/all-notices/project-decision/?id=5473a3f4-27d9-ef11-8eea-002248978a7f>

Some brief comments on the WGEH Referral

The proponent's referral supporting document (Att 1 - WGEH referral support) contains much the same project information as it provided to the WA EPA. In relation to the recognition of natural heritage values, environmental risks and impacts, the supporting document is, similarly, egregiously deficient.

The proponent identified a limited number of MNES relevant to the project area, however this does not in any way mean that all MNES relevant to this project have been identified.

The MNES identified by the proponent are two bird species (mallee fowl and Southern Whiteface) listed as Vulnerable under the EPBCA and five Migratory shorebird species, (p. 22 in 2024-10049 Referral). In addition, the proponent has identified possible indirect impacts to threatened species of marine animals including the Southern Right Whale and Australian Sea Lion (both Endangered), and the White Shark.

The proponent's referral to the EPBC and their supporting document fails to disclose the true heritage significance of the Nullarbor Plain karst, particularly its recognised World Heritage and National Heritage values. The well-known report by Davey et al. 1992 is not mentioned.

The proponent's referral to the EPBC, and their referral supporting document does not mention identified and prospective World Heritage and National Heritage properties which occur within the project area, including important geological formations, landforms, landscape features and processes, biological and ecological values, wilderness, natural beauty, rare and unique environmental values, rare and endemic subterranean species and ecological communities. The referral appears to ignore at least a dozen Recognized Aboriginal Heritage Places within the project area.

The MNES guidelines (p. 6) state: *"When considering whether or not an action is likely to have a significant impact on a matter of national environmental significance it is relevant to consider all adverse impacts which result from the action, including indirect and offsite impacts."*

The proponent's referral downplays, or ignores, some obvious indirect and offsite impacts, especially to the Nullarbor National Park - Wilderness Protection Area.

The proponent's referral states (p. 14 - 3.1.2): *"The proposed action does not intersect the conservation estate. The closest conservation reserves to the project area are the Eucla National Park, located 16 km south of the southeastern corner of the project area, and the Nuytsland Nature Reserve, situated 4 km to the south of the southwestern corner of the project area."* No mention is made of the Nullarbor National Park - Wilderness Protection Area which directly abuts the eastern side of the project area for ~100 km!

If the proposal is allowed to proceed there would invariably be significant impacts (to wilderness, natural beauty, environmental values, visual amenity, day and night views and skyline views) that will intersect with the Nullarbor National Park - Wilderness Protection Area. The impacts include wind towers visible for 30 to 50 km distance, construction noise, dust, potential odour and pollutants.

Additionally, the risks of significant impacts to caves, landforms, landscape, wilderness, and cultural heritage values in the Nullarbor National Park-Wilderness Protection Area, and the Great Australian Bight marine parks, will be much higher due to a massive increase in the local permanent population, from currently less than 100 to approximately 8,000 in a proposed new urban centre near Eucla.

The proponent's referral does not mention the current proposal for World Heritage nomination of the South Australian side of the Nullarbor-Great Australian Bight (TWS 2022), and the obvious highly significant Referral implications, including inevitable and unavoidable facilitated impacts to MNES, which will follow if the South Australian nomination is successful.

In relation to karst features the proponent states (p. 14 - 3.1.3): *"the project area and its surrounding locality is well-recognised for the presence of significant caves and sinkholes. Many occur outside of the project area to the south but there are also significant karst features within the project area. The proponent has compiled and rationalised a spatial data set of all known karst features of significance within the project area and these have been treated as avoidance constraints in the proposed action's indicative disturbance footprint."*

The proponent's description of Nullarbor hydrology (p. 18, 3.4.1) is woefully inadequate; fails to mention the Nullarbor aquifer, or cite any of the published scientific articles, maps or book chapters describing the aquifer characteristics, its significance, and vulnerability to contamination.

The proponent completed four phases of terrestrial fauna survey over a 3-year period, including short-range endemic [invertebrate] fauna sampling, however they did not survey subterranean fauna, nor justify why it had not been surveyed, or even considered subterranean fauna as a potential MNES.

Six species of Nullarbor cave fauna, five spiders and one crustacean, are already listed on Schedule 1 (Fauna that is rare or is likely to become extinct) of the Western Australian Wildlife Conservation Act 1950 [Specially Protected Fauna Notice 2006 (2)]. These six species and several other troglobitic species, such as the Nullarbor Blind Cave Spider *Troglodiplura lowryi*, certainly qualify for listing as Nationally threatened species. Many of these species are known only from a single cave and qualify as Extreme Short-Range Endemic (ESRE) species.

Updated Mapping

The referral documents released by the proponent contained maps of proposed infrastructure which have enabled more detailed appraisal of the intersection of infrastructure with significant karst features and up-gradient proximity to underground drainage systems. It is evident that many karst features, or their putative underground drainage catchments, have not been treated as avoidance constraints by the proponent (see Maps 1, 2).

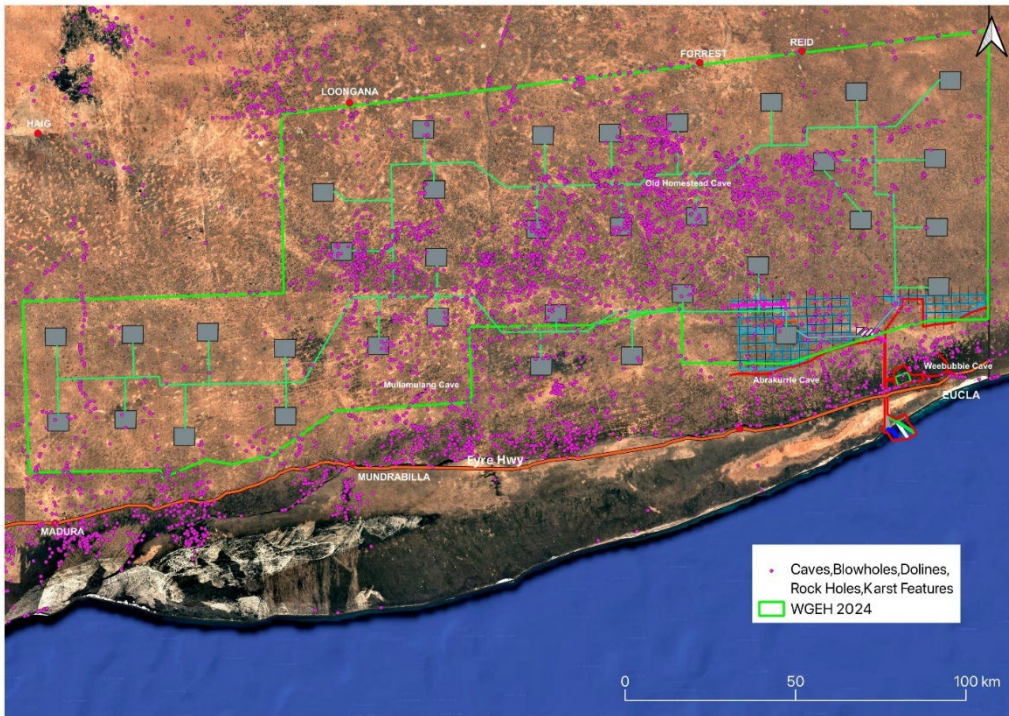


Figure 1: Map 1 - Inside the proposed Western Green Energy Hub development footprint, more than 4,500 karst features (pink dots) have been recorded, including >400 caves, >500 rock holes, >1,900 blowholes, > 1,470 dolines (sink holes). The grey boxes are the solar farms, comprising approximately 4 x 5 km field of solar panels with a hydrolyser plant in the middle. In this map the wind tower grids have not been added, except for phase 1 area near Eucla, Abrakurrie and Weebubbie Caves (see enlarged next map).

Data sources: Google Earth, speleological field surveys OzKarst 11 Mar 2024, proposed WGEH infrastructure is adapted from WGEH supporting document. Map © Save The Nullarbor Inc.

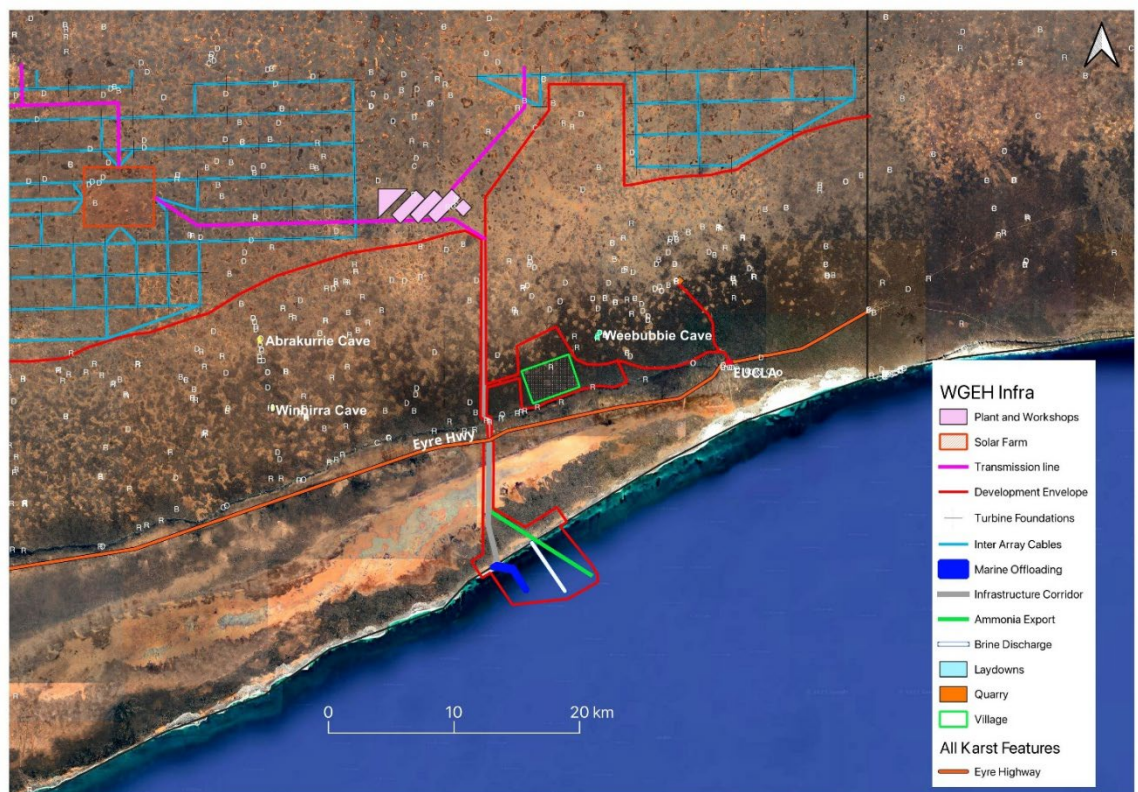


Figure 2: Map 2 - Proposed WGEH phase 1 infrastructure near Eucla and karst features recorded to date (white letters): blowhole (B), cave (C), doline (D), overhang (O), rock hole (R). Known segments of the nationally significant Chowilla-Abrakurrie-Winbirra and Weebubbie Cave drainage systems are labelled. The proposed urban centre for ~8,000 people (green) is located on the edge of the Hampton Escarpment within 3 km of Weebubbie Cave. The existing small quarry ~8 km NE of Weebubbie is proposed to be expanded significantly to supply rock material for roads and construction. The proposed ammonia plant and storage facility (pink) lies ~13 km up-gradient from both the Abrakurrie-Winbirra and Weebubbie Cave systems. Data sources: Google Earth, speleological field surveys OzKarst 11 Mar 2024, proposed WGEH infrastructure adapted from WGEH supporting document. Map © Save The Nullarbor Inc.

World Heritage Convention & Matters of National Environmental Significance (MNES)

The MNES Significant Impact Guidelines state: *“Under the EPBC Act an action will require approval from the minister if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance.”*

World heritage properties and national heritage places are matters of national environmental significance (MNES).

The enormous scale of the WGEH proposal inevitably means that there will be significant impacts on potential MNES, including landscapes and landforms of recognised World Heritage and National Heritage significance, as well as rare, endemic and unique cave invertebrates.

The WGEH proposal carries an inherent risk of serious and irreversible impacts, and the precautionary principle is applicable. Accordingly, a lack of scientific certainty about the potential impacts of an action will not justify a decision that the action is not likely to have a significant impact on the environment (Att 3 - 2013_MNES Significant Impact Guidelines 1.1).

There is a prima facie case that the Western Australian side of the Nullarbor has multiple World Heritage criteria, and allowing damage, alteration or modification of the Nullarbor’s natural and cultural values before this has been verified may be a breach of Australia’s legal responsibilities and obligations under the UNESCO World Heritage Convention.

Australia, as a signatory to the UNESCO Convention Concerning the Protection of Cultural and Natural Heritage (the World Heritage Convention), has a legal obligation to identify and protect areas of outstanding universal value (OUV). This obligation does not hinge on waiting until the Nullarbor is listed as World Heritage.

Article 3 of the World Heritage convention requires Australia to identify and delineate a site with universal values like the Nullarbor, for its cultural and natural values, and to protect it.

Article 4 of the World Heritage Convention requires that each State Party to the Convention (Australia is a state party as a signatory to the Convention), *“will do all it can to this end, to the utmost of its own resources”*.

To allow the energy hub proposal to proceed on the Western Australian side of the Nullarbor while the South Australian side is nominated for World Heritage may contradict Australia’s legal obligations under the UNESCO World Heritage Convention.

Conservation Council of Western Australia

The Conservation Council of WA (CCWA) have published a new page on their website dedicated to the Nullarbor and the WGEH assessment. The web page states inter alia:

“After thoroughly reviewing the [WGEH] project documents, CCWA asserted that the project should be assessed a 'controlled action.' We are particularly concerned about the risks to caves, as well as the risks associated with ammonia production and hydrogen transport.”

<https://www.ccwa.org.au/thenullarbor>

Media Statements

In response to the EPBC referral for public comment, Save The Nullarbor circulated a media statement 28th January that can be viewed here:

<https://savethenullarbor.org/media-articles/media-release/>

Nullarbor Petition tabled in Federal Parliament 5th February 2025

With WA state and federal elections looming we felt the time had come to hand over the petition which had gained 15,000 signatures over 13 months. We initially planned a handover in WA however various factors mitigated against that, including that the WA parliament was locked down prior to their election scheduled 8 March.

Then fortuitously, Australian Greens Senator for Tasmania, Nick McKim, enthusiastically stepped up and offered to table the petition in the Senate during the first sitting week of the Australian parliament in 2025. The first sitting week also coincided with the closing date for public submissions to the environment minister on the referral of WGEH for assessment under the EPBC Act.

Senator Nick McKim presented the petition with more than 17,000 signatures to federal parliament on 5th February 2025.

Senator Nick McKim's Facebook page has 57,000 followers and his Instagram 26,100 followers.

Here are three quotes copied from Nick's social media post:

"A privilege to table a petition in the Senate today to save the Nullarbor from a massive development which will impact biodiversity, threatened species, Aboriginal heritage and the fragile limestone caves of the world's largest arid limestone karst system."

"This stunning region, worthy of World Heritage, should be protected, not smashed for corporate profit."

"Please head over to [@savethenullarbor](https://www.facebook.com/share/p/1BA64SNTaC/) to join the campaign and learn how you can help save this iconic area from destruction."

<https://www.facebook.com/share/p/1BA64SNTaC/>

Promotion of the petition by change.org and STN in the days leading up to the handover saw the number of signatures skyrocket from 15,000 to >20,000 by the end of the week.

Because it is a non-conforming petition it will remain open for signing until the Nullarbor is saved.

The petition is still growing and at the end of February exceeded 22,000 signatures!

Thank you everyone who has signed, shared and promoted the petition this far.

<https://www.change.org/p/save-the-nullarbor>



Figure 3: Stefan and Bronwen Eberhard handing over the petition to Senator Nick McKim in Hobart who tabled it in the Senate, Parliament House, Canberra, 5th February (left).

Weebubbie & Abrakurrie Cave Visitation Profiles & Conservation Prospects

The name Weebubbie appears to be an anglicised derivation from the Yerkala Mirning Aboriginal words 'weeba' (ant) and 'gapi' (water) referring (more or less) to this "place where the ants go down to get water".

Weebubbie Cave has outstanding natural and cultural heritage values of undoubted world heritage quality.

In addition to its immense cultural heritage significance to Yerkala Mirning People, Weebubbie Cave is of exceptional importance for its ecological values which includes three discrete ecological communities which qualify as threatened ecological communities under the EPBC Act.

The communities include a diverse community of blind cave invertebrates (beetles, spiders, cockroaches, centipedes, crustaceans), bats, swallows and dependent guano invertebrate community, and a globally unique community of aquatic microorganisms – microbial mantles. Each of these communities are potentially impacted by people and divers if care is not taken to minimise disturbance when visiting the cave.

I have been visiting and diving in Weebubbie Cave over 40 years and between each of my visits, invariably several years apart, I have observed gradual degradation and impacts to the cave which cause me grave concern for the cave's future conservation and ultimate protection. Not surprisingly, 'unauthorised' visits continue to occur despite the removal of the ladder into the doline, and, ostensibly, closure of the cave unless authorised by prior permit application to Department of Planning, Lands & Heritage (unenforced). Without begrudging the long-held tradition of people visiting this spectacular cave, I have been alarmed on recent visits at the expansion of graffiti and rubbish, and the lack of awareness shown by visitors inadvertently disturbing bats and trampling the invertebrate guano community.

To educate visitors about the cave's sensitive ecological values and encourage care and respect for the cave we installed a visitors' book in the entrance. We also installed two discrete signs at each end of the marked route where it crosses the bat guano deposit – the signs politely ask visitors to take care to avoid trampling the invertebrates. The visitor book includes a map of the cave showing the route to follow and describing the bats and invertebrates and how to minimise impact. The other purpose of the visitor book is to start accruing data on visitor numbers which can be used to inform future management planning. The visitor book was installed end of July 2023 and checked in August 2024. During this ~12-month period 120 names were written in the book by 43 discrete groups of visitors. The busiest months were April 2024 (5 groups, 33 people) and June 2024 (dive group, multiple days).

Group numbers ranged from 4 to 14 (Scout Caving Group). Most groups visited the cave on one day only. There were two diving groups during the period. Dive groups usually stay several days and enter the cave on multiple consecutive days. The longest recorded stay on site was nine days for a dive filming group of eleven. Three other large groups were recorded, each comprising nine, nine and 14 people, the largest was a scout group. One researcher was recorded. Return visits were made by just a few locals.

Most groups visited the cave on separate dates although a few groups visited the cave on the same date. If we disregard the few overlapping dates, and make a few assumptions about the diving group visits, then a rough measure of visitation to Weebubbie over the period is about 50 day-group visits, which equates to one group visit every 7.2 days. This figure is consistent with what we observed when we were camped a respectful distance away from Weebubbie over a four-week period in 2023. We observed vehicles arriving every one to two days. The cave is a well-known destination. Most visitors had a quick look, photograph and move on without descending into the cave. A few camp overnight. About once a week there was a group that entered the cave, usually with the aim of swimming in the lake.

Aside from the intractable problem of controlling access and visitation (authorised and unauthorised) in the event of WGEH's proposed urban centre for ~8,000 people only 3 km away, the WGEH proposal introduces the risk of groundwater contamination to Weebubbie's underground drainage system, both upstream and downstream (Map 2).

Another iconic Nullarbor cave system in a similar situation to Weebubbie is that of Chowilla-Abrakurrie-Winbirra located ~25 km west of Weebubbie (Map2). Abrakurrie Cave is well-known, regularly visited and subject to ongoing graffiti attacks, expanding vehicle tracks and camping impacts around the doline. The cave entrance is ~3.5 km from the WGEH project boundary and ~13 km southwest of the proposed ammonia plant (Map 2). The same intractable problems of protecting the cave and managing visitation apply as they do for Weebubbie, even more so because the entrance is not vertical and easily entered. In August 2023 we installed a discrete sign at the entrance asking visitors to take care to avoid disturbing the bats or trampling the invertebrates.

There is a visitor book on the rockpile at the far end of Abrakurrie, however it is not highly visible, and it is very likely that some visitors do not see it; therefore, the visitation data presented here under-represents the actual numbers. The first legible entry in the book was in March 2017. The number of day-group entries and names recorded in the book each year up until August 2023 are as follows:

Year	Day-Groups	n People	Comments
2017	23	59+	From March 2017
2018	23	89	
2019	12	29	
2020	7	13	Covid lockdowns
2021	11	44	Covid
2022	4	9	Covid lockdowns
2023	9	36	Until August 2023

The entries clearly show the effect of the COVID-19 pandemic involving various state lock-down periods and reduced travel 2020 to 2022. The years 2017 and 2018 are probably more typical, both years recording 23 day-groups visiting the cave, equivalent to about one group visit every fortnight, which is about half the rate recorded at Weebubbie (noting the comparison spans different time periods). The entries in the book indicate Abrakurrie is popular with locals from Eucla, as well as travellers from further afield who make return visits.

Indian Pacific ultra-cyclist riding > 5,000 km and promoting Save the Nullarbor!

The Indian Pacific Wheel Ride (IPWR) is a 5,471 km single stage, unsupported bike-packing event from Fremantle to Sydney. Although not an official race the IPWR is an internationally renowned ultra-cycling event. This ultra-cycling event is an extraordinary physical and mental endurance challenge because the riders travel entirely self-contained and unsupported for their entire journey. It also requires great courage and vigilance on the highways shared with vehicles.

The IPWR 2025 event will start Saturday 15th March from the South Mole Lighthouse, Fremantle. So far there are 28 riders registered in this years' event, from Australia, Poland, Slovenia, Italy, Ireland and Germany. One of the riders, Kevin Paine (race name Pizza Rider) from Cairns in Queensland, has generously offered to dedicate the main purpose of his ride this year to promoting awareness about the Nullarbor and the campaign to save it from industrialisation.

This year will be Kevin's 6th start in the IPWR. Kevin explained:

"As a slow rider doing it for enjoyment, I'm going to be weeks behind the winner, so taking extra time for photos, videos, and promoting Save the Nullarbor during the ride, is something I'm happy to do."

Crossing the Nullarbor is Kevin's favourite ~900 km section of the 5,471 km ride, albeit headwinds, cross winds or tailwinds can make a huge difference to his progress which can range from 100 to 300 km per day. He often prefers to ride at night when it is cooler. In one memorable 36-hour riding stint Kevin covered 488 km from Mundrabilla to Penong.

You can see more photos and read about some of Kevin's 2019 experiences as a novice in his blog (link under). Riders carry GPS tracking devices, allowing their daily progress to be followed online (link under). The Indian Pacific Wheel Ride Facebook Group (Dot Watchers) has 9,400 members.

Pizza Rider Facebook: <https://www.facebook.com/profile.php?id=100063741032779>



Pizza Rider Blog: <https://pizza-rider.blogspot.com/>

Indian Pacific Wheel Ride Group:

<https://www.facebook.com/groups/IPWR.DW>

Race tracking site:

<https://ipwr25.mapprogress.com/>

Kevin Paine (aka Pizza Rider) about to depart Fremantle for Sydney IPWR 2024.

Free Posters!

Ten Save The Nullarbor campaign posters featuring stunning Nullarbor landscapes are offered for free in the form of print-quality pdf files or screen-quality jpegs. We hope this offer will inspire people to print and display them where they will be seen by as many people as possible!

The high-resolution print-ready pdf posters have been sized for best quality reproduction printing at size A2. We recommend professional printing on high-quality 180 gsm matt poster paper size A2. Of course, they will also reproduce well at smaller size (A3, A4) and they also look good enlarged to A0 and printed as a fabric banner. Note the pdf print-ready files include 5mm bleed margin

Individual print-ready pdf poster files are 65 to 95 Mb and too large to store on our website, so if you want one, or more, email us with your choices and we will send via WeTransfer or similar. admin@savethenullarbor.org

Smaller jpeg file (<2 Mb) versions of the posters are available for free download from the website as screen saver backgrounds or slideshow. www.savethenullarbor.org

Poster Titles:



1) Heart of the Nullarbor,



2) Myall Yirrerie Sky Country,



3) Karrdamin - Mind of the Cave
(Pleasure Dome),



4) Caverns Measureless,



5) Weeba Gabi,



6) Marilya (Kestrel Cavern),



7) Sunless Sea,



8) Chowilla I,



9) Sacred River,



10) Nullarbor Sky Country

These images, and others (see website gallery), are also available as clean text-free images printed on art-quality paper. Email for size options and prices including tube postage. Mounting and framing can also be arranged for additional cost. All proceeds go towards Save The Nullarbor campaign.

Membership

Applications for STN membership are welcome. Annual subscription is only \$AUD 20. Email admin@savethenullarbor.org.

Subscribe for email newsletter and important campaign updates

There is a secure “Join Us” button on Save The Nullarbor website where you can subscribe for occasional email updates and newsletters. Personal data is held securely. www.savethenullarbor.org

Donations

Save The Nullarbor Inc. is seeking donations to support ongoing efforts to raise public awareness about the values and looming threat to the Nullarbor. Donations can be made via the secure website button or contact us directly by email: admin@savethenullarbor.org

More Information

Links to the petition, website, sizzle reels, news articles, media releases and social media are in the Linktree below:

<https://linktr.ee/savethenullarbor>



Information on cover photos

Front Cover Photo:

Nullarbor's outstanding dark sky environments are one of its intangible, yet mesmerizing essences. Nullarbor Sky Country and Yirrerie, Milky Way, hold ancestral stories of Creation for the Yerkala Mirning People. If the Western Green Energy Hub is permitted to go ahead then this pristine night sky view west across the entrance of Weebubbie Cave, a Recognised Aboriginal Heritage Place, will be seriously impacted by light pollution from the urban centre for ~8,000 people proposed ~3 km southwest of this point. The proposed ammonia plant, storage tanks, and workshops lie ~13 km northwest (up-gradient in the aquifer) of this point. The expansive horizon views covering an arc ~135 degrees from the west to the northeast will be impeded by colossal wind towers more than twice the height of the Bunda cliffs. The Nullarbor karst plain is a kind of wilderness, where it is possible to experience raw and pure nature, profound stillness, immense space with uninterrupted horizon views, and the most brilliant starry night skies imaginable. Photo Stefan & Bronwen Eberhard. ¹ https://whaledreaming.au/?page_id=52

Back Cover Photos

Top - This spectacular view from the Eucla Lookout is well known to travellers and tourists driving across the Nullarbor Plain. This view westward encompasses the intriguing Hampton Escarpment, which is an ancient shoreline running for nearly 300 km and connecting with the Bunda and Baxter cliffs, which along with the Wylie Escarpment, form the longest unbroken escarpment in the world - a globally significant geoheritage feature. The Western Green Energy Hub proposes constructing an urban centre for ~8,000 people with a 9 km long development envelope extending along the edge of the escarpment approximately in the middle of this view. About 3 km further west is the proposed ammonia pipeline and transport corridor (see next image). Photo Stefan Eberhard.

Bottom - This photo looking westwards along the Hampton Escarpment and Roe Plains, about 20 km west of Eucla, shows the pocket valley which WGEH proposes to use as the infrastructure transport corridor, ammonia and water pipelines, connecting the proposed marine port and desalination plant to the ammonia plant, storage tanks, workshops and solar and wind farms situated ~18 km inland from the escarpment. Conjectural extension of the Chowilla-Abrakurrie-Winbirra drainage alignment passes beneath the escarpment approximately 16 km west from here. Photo Stefan Eberhard.

