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Via: <u>burruprockart@dwer.wa.gov.au</u>

RE: "Draft Burrup Rock Art Strategy" September 2017 Submission

On 6 November 2002, the National Native Title Tribunal held an Inquiry Hearing, chaired by the Hon C. J. Sumner, wherein the protection of the rock art of the Burrup Peninsula (Murujuga) was discussed. Government representative William M. B. Carr suggested a physical method of protection for the rock art:

"If it is decided that [the petroglyphs] are significant, then it's a matter of - of having to reduce the gas load on to them in some way. Either that's through - through coatings or shelters or - as is done with archaeological material in another parts of the world. It very much depends on - on the significance of the sites themselves and if there's - or there's work with the emissions at the source. So it's really engineering."¹

The Draft Burrup Rock Art Strategy presents no more genuine protective strategies than this unrealistic proposal, and suggests absolutely no industry alterations whatsoever.

In a media statement² on 8 September 2017, the Hon. Stephen Dawson MLC (Minister for Environment) said that the Draft Burrup Rock Art Strategy "outlines significant improvements to monitoring, and a responsive management approach based on best available science", but the latter (a management approach) is not apparent in this Strategy.

The *Environmental Protection Act 1986* Section 4A³ outlines principles under which decisions affecting environmental protection should be regarded, three of which (below) have been selected by the Strategy as part of the Scope (3.0):

1. The precautionary principle

Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent scientific degradation.

In the application of the precautionary principle, decisions should be guided by -

- a. careful evaluation to avoid, where practicable, serious or irreversible damage to the environment; and
- b. an assessment of risk-weighted consequences of various options.
- 2. The principle of intergenerational equality

The present generation should ensure that the health, diversity and productivity of the

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environment is maintained or enhanced for the benefit of future generations.

3. The principle of the conservation of biological diversity and ecological integrity

Conservation of biological diversity and ecological integrity should be a fundamental consideration

Under the *Environmental Protection and Biodiversity Conservation Act 1999* and the *Environmental Protection Act 1986*, permission to develop land on Murujuga should never have been granted.

The Strategy acknowledges the above, and simultaneously fails to outline the ways in which it will take these necessary measures to protect the rock art and preserve not only the environment, but the culture of Aboriginal Australians. Even under this pretence the Strategy somehow does not provide any specific conservation methods, assessments of "risk-weighted consequences" of various options, nor any "recommendations regarding the protection of the rock art" (p.9), nor any assurance of the environment's sustainability for future generations.

Monitoring alone is not a sufficient means of preservation. The Strategy does little to fulfil its promise of outlining a "long-term framework to guide the protection of Aboriginal rock art located on the Burrup Peninsula and to describe a process by which management responses will be put in place to address any changes to the rock art" (p.2).

While the Strategy details in the history, protective initiatives, and legislation regarding Murujuga, Table 1 (p.4-6) suggests that the current state and commonwealth procedures are enough to protect the rock art alongside the consistent monitoring outlined by the Strategy. However, this is historically false in the context of such protections being applied. To amend this section, full detail on the true effectiveness of these protections must be included.

It is included that "Consent is required from the Western Australian Minister for Aboriginal Affairs for any activity which will negatively impact Aboriginal heritage sites" (p.4), in reference to section 18 of the *Aboriginal Heritage Act 1972*. The fact that the Minister can and has ignored recommendations of the Aboriginal Cultural Material Committee (ACMC) was omitted, and in the case of Murujuga, all developments are impacting the site.

In 2006 and 2007, permission was granted to Woodside by Aboriginal Affairs Minister Michelle Roberts, to develop a Pluto LNG facility (addressed in Table 1, p.6) on which rock art was located. The rock art was transported to another site, and the Minister gave permission against the recommendations of the ACMC.⁴

Woodside was again granted permission to develop at James Price Point by recommendations from the ACMC and the Aboriginal Affairs Minister Peter Collier in 2013.⁵ Recommendations have no bearing on whether the Minister may choose to allow development, and the ability of legislation to legitimately protect the art.

In 2016 it was revealed that, with the ACMC's recommendations, 22 Aboriginal heritage sites (including Murujuga – site 23323) had been removed from the heritage register in 2012. This was only exposed after

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Questions.⁶ More recently, deregistration of heritage sites surrounding the planned Roe 8 route in 2016 was recommended by the ACMC (Turner, 2016)⁷. The mere existence of such a body does not guarantee protection of Aboriginal heritage whatsoever.

The "quintessentially Australian"⁸ Dampier Archipelago (and Burrup Peninsula) was registered for National Heritage on 3 July 2007. Before 2007, industries had been established neighbouring the protected region, investing "in excess of \$35 billion in developments", trading 88.9 million tonnes in 2003-4 at Dampier Port.⁹

The Yara Pilbara Nitrates Fertilisers Pty Ltd – owned by Yara International – a fertiliser plant in Murujuga, which leaked over 14 tonnes of ammonia gas in March 2016, one of 11 similar incidents.¹⁰ The gas leak hospitalised eight workers at the facility.¹¹ On the 29th of April 2017, the Yara Technical Ammonium Nitrate plant in Murujuga released nitrogen dioxide with a concentration of 1088ppm.¹² Toxic levels for humans can be as low as 1ppm, and 0.3ppm for asthma sufferers.¹³ At levels above 0.46ppm, the yellow-orange colour of NO₂ is visible.¹⁴

The industries (as of 2011) produced 39 million tonnes of greenhouse gas emissions annually (50% of WA's total emissions).¹⁵ The National Heritage listing does not include industrial property, but the emissions of these industries (on land and water) affect the entirety of Murujuga.

The bunker fuel currently used by ships accessing Dampier Port is a known emitter of sulphur dioxide (SO_2) .¹⁶ One ship emits up to 5,000 tonnes of sulphur oxides (SO_x) , and shipping in general is "responsible for 18-30% of all the world's nitrogen oxide (NOx) pollution and 9% of the global sulphur oxide (SOx) pollution".¹⁷ Peer-reviewed studies have shown that emissions of sulphur dioxide (SO_2) have a cumulative effect on the acidity of rainfall in surrounding regions.¹⁸ Emissions of nitrogen oxides (NO_x; emissions of NO and NO₂) and ammonia (NH₃) also lead to higher acidity in rainfall.¹⁹ These compounds are all present in emissions at Murujuga.

It must be included that Murujuga National Park (5.1), as it was not established until 2013, has not been able to offer any form of protection for more than 4 years. In the Murujuga National Park Management Plan (2013, p.14), rangers working at Murujuga National Park were to be given the status of Honorary Warden under Section 50 of the *Aboriginal Heritage Act 1972*:

"Wardens have powers to question and remove people in some circumstances. These provisions may enable certain management activities to take place within the protected areas. It is envisaged that relevant staff will be appointed as honorary wardens under this section".²⁰

No wardens have been appointed, thus, the "strategies implemented" (p.14) are not the entirety of suggestions from the plan.^{21, 22} The National Park, as its protections stand, has not been able to prevent vandalism of the rock art.^{23, 24} Neither is it possible for a National Park to offer protection against the dangers of emissions.

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The Strategy outlines the monitoring processes it intends to conduct, while simultaneously acknowledging existing studies on "air quality, microclimate, dust deposition, colour change, mineral spectrometry, microbiological analyses, accelerated weathering studies, and air dispersion modelling" (p.1). Other existing studies and independent research (excluding unreliable CSIRO reports)²⁵ show that emissions are impacting and corroding the rock art, eliminating the need for additional monitoring before real protective

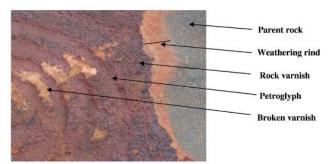


Figure 2. "Burrup rock with petroglyph showing parent rock, weathering rind and the rock varnish patina" (Black et al., 2017, p.458)

measures are implemented. Air quality at Murujuga is being severely affected by emissions and pollutants. On the Bureau of Meteorology's radar images of Dampier (figure 1), emissions are depicted as cloud cover on a daily basis.

Acid rain is falling in Murujuga, severely affecting the pH recorded on rock surfaces.²⁶ A 2017 study by Dr John Black (a member of the proposed Burrup Rock Art Strategy Reference Group [BRASRG]) show that the current pH on the surface of previously pH-neutral rocks at Murujuga is "just above 4" (highly acidic). The varnish on petroglyphs is being corroded, and any level of acidity would "destroy the petroglyphs on Burrup Peninsula" (figure 2):

"Whilst the conclusions [...] that there have been no consistent colour changes at rock art sites on [the] Burrup Peninsula can be contested [...] the outcomes from this paper provide irrefutable evidence that the levels of pollution being emitted from industry on [the]

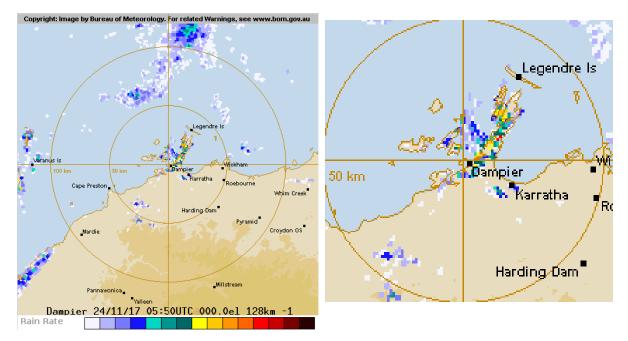


Figure 1. The Dampier Archipelago is depicted daily as having cloud cover. (24th November, 2017. Source: <u>http://www.bom.gov.au/products/IDR153.loop.shtml</u>)

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Burrup Peninsula will, over time, cause significant deleterious changes to the integrity and colour of the petroglyphs. The analyses also refute claims by government and industry that industrial emissions from the new ammonium nitrate production facility will not damage rock art on [the] Burrup Peninsula." (Black et al., 2017, p.461-2)

The Strategy states that "a better understanding of the current and likely future pollutant load of the Burrup Peninsula, the source of these pollutants, and the impact of the pollutants on the rock art is required" (p.11), contradicting the precautionary principle entirely, and the evidence provided by the most recent research.

Microbial growth is stimulated by high nitrogen concentrations on the surface of rocks, and some of the microbes produce natural acids which will also corrode the rock.²⁷ This effect is exacerbated in wet seasons, due to increased microbial activity.²⁸

Many of the monitoring processes outlined for the Strategy have already been done by independent/university researchers. The need to repeat this monitoring and research is clearly unnecessary as a prerequisite for implementation of protections. The aim of delivering a "scientifically rigorous approach to monitoring and management that will provide an appropriate level of protection to the rock art" (p.1) is not even remotely fulfilled. Monitoring is not a method of protection.

The Strategy acknowledges that there are "significant problems with cross-calibration between instruments, inconsistent error-prone data management, clear errors in data" (p.7). Despite this, and the above research into all of the facets of environmental monitoring that the Strategy proposes, it still finds it necessary to repeat the faulty research of the CSIRO. The Strategy does not fulfil its aims to outline any practical method to "build on the previous work on the Burrup Peninsula" (p.1).

Perhaps it is "timely" that monitoring be conducted on Murujuga, but it is of the utmost urgency that immediate protections are implemented at the level of industry. In addition to the "revised method for the collection and analysis of data" (p.10) the Strategy suggests, protective methods must be outlined with specificity. The Strategy uses redundant monitoring as a requirement for future protective measures, but does not define what any of these might be, neither after the monitoring period nor any monitoring that may occur in the meantime. It does not suggest any restrictions on emissions or industry.

We cannot simply monitor while the industry continues its "business as usual" attitude. To preserve the rock art, the total emissions load must be decreased. Further developments should be ceased and gazetted industrial leases should merge with the boundary of Murujuga National Park land. Retrofitting existing emissions sources with emission control devices. The fuel type for ships using the port at Murujuga should be changed to a cleaner fuel than bunker fuel.

The BRASRG is currently dominated by non-experts, and government representation outnumbers both industry and other representatives. The group requires more technical experts, more representatives from Centre for Rock Art Research and Management (UWA), industry sector representatives, and the Murujuga Aboriginal Corporation, in addition to including more independent researchers. The group should also meet more often than "annually" (p.20).

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An error in the Strategy that will require updating is the "pecking and/or engraving" (p.2) method of creating rock art isn't comprehensive, as rock art was also created through scratching, pecking, pounding/bruising, and scoring the stone.²⁹

In the section 2.2 "Senate Inquiry into the protection of Aboriginal rock art of the Burrup Peninsula" (p.8), it is stated that the results of the report are to be handed down on 18 October 2017, but this has been extended (for the fourth time) to 29 November 2017. When released, the information should be included. The results of the inquiry should not be used as the sole evidence to support/oppose immediate protection of Murujuga, but be included as a relevant matter.

In addition, to show the sincerity of the Government in establishing protective measures, Murujuga should be nominated for a World Heritage Listing immediately. Other Heritage Listed sites around Australia hold similar significance to Aboriginal peoples, in particular Kakadu National Park³⁰, and Uluru-Kata Tjuta National Park.³¹

A 2012 evaluation of Murujuga's eligibility for a UNESCO World Heritage listing found that it was eligible for two of the ten criteria (only one is necessary).³² In 2002, the National Trust of Australia placed Murujuga on its Endangered Places List,³³ and the next year it was the first location in Australia to be placed on the World Monuments Fund's 100 most threatened places.³⁴ In a 2006 proposal regarding the World Heritage Listing application of the peninsula, Murujuga was called "a place of unparalleled artistic, cultural, religious and historical significance, as well as a place of magnificent natural beauty".³⁵

To preserve Murujuga, the rangers should finally be given Honorary Warden status, and the National Park should be given Class A reserve status, deserving of the greatest degree of protection under the law; "requiring Parliament to amend the reserve's purpose or area, or to cancel the reservation"³⁶. Twenty-five of the forty-two islands in the Dampier Archipelago are nature reserves.³⁷ The Strategy should suggest a request for reservation be made through the government to the Department of Regional Development and Lands under the *Land Administration Act 1997*.

We cannot risk a similar situation to that which has unfolded in the United States. In late 2016 and early 2017, the construction of the Dakota Access pipeline was protested for months on end by the Standing Rock Sioux Tribe, the Native American people who protect the sacred sites adjacent to the pipeline.³⁸

The protesters were abused and ignored by United States and Canadian Governments, despite the United Nations statements condemning the treatment of protesters^{39, 40} On 24 January 2017, United States President Donald Trump signed an executive order to complete the project.⁴¹

Earlier this month on 16 November, 210,000 gallons of crude oil leaked from the pipeline and polluted the environment in north-east South Dakota.^{42, 43} This emphasises the consistent threat that fossil fuel industries pose to both cultural and natural landscapes.

The industries on Murujuga are destroying the land of the First Nations peoples of Murujuga; the Ngarluma, Yindjibarndi, Yaburara, Mardudhunera, and Wong-Goo-Tt-Oo. Inaction will not be reversible, and we cannot risk jeopardizing the survival of this precious gallery of Aboriginal culture and technology any longer.

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We cannot allow the sustained pollution of Murujuga that is occurring; through industrial emissions or through vandalism – we must avoid even further "serious or irreversible damage to the environment" (p.8) and culture that exists at Murujuga. We cannot afford to delay the protection of Murujuga and its sacred Aboriginal rock art any longer.

Yours sincerely,



The Hon Robin Chapple MLC Member for the Mining and Pastoral Region 24 November 2017

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