



CORE CONSULTATIVE COMMITTEE ON WASTE (3C) RESPONSE TO SUBMISSIONS MADE ON THE EXHIBITED SHORT LISTED SITE - NW072, NW074 AND NW075 (NEAR KARRATHA)

The Core Consultative Committee would like to thank all individuals/groups who provided comments on the Exhibited sites. This document summarises all submissions received that are specific to the NW072/074/075 site (near Karratha) and contains the 3C's responses to these. Any comments in submissions that are generic to all sites (i.e., are not site specific), have been summarised in a separate document titled "Response to Submissions on Non-Site-Specific Issues".

In order to analyse and respond to comments, submissions have been summarised and presented in tabular format with 3C responses to the issues raised also provided. To protect the privacy of submission writers, a unique code has been allocated to each submission. A letter will be sent to advise you of your code when the final summary of submissions document is released after the Cabinet decision has been made. Any submissions made by public authorities (e.g. Local and State Government Agencies) or broad stakeholder interest groups (e.g. the eight Representative Community Groups, clubs, churches, chambers etc) are publicly identifiable and are listed in the final table appended to the end of this report.

Table 1 contains comments relating specifically to the site selection criteria. The remaining tables relate to non-criteria specific factors.

These documents have been provided to State Cabinet in support of our advice on preferred sites.

Table 1: NW072/074/075 (Near Karratha) - Summary of Submissions against the Site Selection Criteria

No.	Specific Factor	Criteria	Submissions	Response
1	Flood plains	At least 500mm above a 100 year ARI floodplain.	<ol style="list-style-type: none"> The site is on a bad area for flooding. (KAR475, KAR476) Flood in April 1 1966 washed away whole of railway line, 18 inches rain in 18 hours, a storm in 1976 had 14 inches in 3 days. (KAR475, KAR476) The site at Mt Prinsep is a floodplain, when it rains it floods (KAR477) Consultant's report has raised potential hydrogeological and flooding issues. According to the consultant's report, the first two month's of this year have deluged Karratha in more rain than has occurred in a calendar year before these issues should be amenable to further study/analysis by the 3C. (NTN, CSA) The issue of flooding requires more investigations before ACE could confidently support the development of this site for a precinct some parts of the site under consideration appear to be low lying and may be subject to flooding. (ACE, CSA) 	<p>1-5 The 3C acknowledge that some areas of the exhibited site may be subject to flooding but have advice from the DoE that sufficient land is available at the site that is 500mm above the 100 year ARI floodplain and this criterion can be considered to be met.</p> <p><u>3C Conclusion:</u> The site meets this criterion.</p>
2	Natural Waterways/Wetlands/Marine Systems	Not less than 1000m from high conservation/ecological value aquatic ecosystems, not less than 500m from a slightly too moderately disturbed systems and not less than 250m from highly disturbed aquatic systems.	<ol style="list-style-type: none"> A number of minor creek lines occur in the area, and a survey would need to determine the significance of creek line vegetation and ecosystems. (DCLM) Site located in the catchment divide of the Maitland and Nickol Rivers. (DA) 	<p>1-2 Noted. However the 3C believes that it has sufficient information to indicate that there is enough land outside the required buffer distances that can meet this criterion.</p> <p><u>3C Conclusion:</u> The site meets the essential and desirable components of this criterion.</p>
3	Groundwater	Not within Public Drinking Water Source Areas (PDWSAs) P1-P3 priority areas identified in published development plans.		
4	Groundwater	Groundwater should be maintained at least 5m below the surface.	<ol style="list-style-type: none"> Proximity of the site to groundwater levels would need to be investigated. (DoE) A local resident has reported the presence of a significant groundwater stream under the site, at a depth that may be above the 5 metre level desired. (KAR473) 	<p>1-3 Once a general site has been selected the 3C understands that more detailed studies will be undertaken to identify the best location within the exhibited site for a precinct. It is at that stage that detailed studies would be undertaken. The 3C</p>

No.	Specific Factor	Criteria	Submissions	Response
			3. Underground water flows under the site and also under the Roebourne Shire tip. This water ends up under Exmouth for their Town supply, I have proof of this. (KAR477)	believes that it has sufficient information to indicate that there is enough land within the site that can meet this criterion. <u>3C Conclusion:</u> The site meets this criterion.
5	Groundwater	Hydraulic conductivity of any soil (natural or engineered) above ground water shall ensure that the transport time of contaminants to groundwater is more than 2 years.	1. Clay pan country holds water for a long time. (KAR475, KAR476)	1. Noted. <u>3C Conclusion:</u> No records of hydraulic conductivity have been identified however the criterion can be achieved through the use of engineered soils. The site meets this criterion.
6	Constructed drainage systems e.g. storm water or road drainage	Not within 100m of an entry point of a constructed drain.		
7	Hydrogeology	Should be located in an area where the hydrogeology can be readily monitored and managed with confidence.	<ol style="list-style-type: none"> 1. There is concern regarding the criterion for hydrogeology (essential), which is somewhat complex due to the presence of underlying fractured and faulted bedrock which has the potential to channel and direct groundwater flow through conduits of preferred movement. (DCLM) 2. Concerned about the ability to confidently monitor the groundwater beneath the site as any leakage and contamination must be able to be detected quickly and remediated before significant plumes can develop. This site may not meet groundwater monitoring confidence criteria. (ACE, CSA) 	<p>1-2 Once a general site has been selected the 3C understands that more detailed studies will be undertaken as part of any formal environmental approvals processes. However, the 3C believes that it has sufficient information to indicate that there is enough land within the site that can meet this criterion. While the geological setting may be somewhat complex in some areas of the site (fractured and faulted bedrock underlying), it should not prove an impediment to management of groundwater at the site.</p> <p><u>3C Conclusion:</u> The presence of fractured and faulted bedrock underlying some areas of the site will complicate the design of groundwater monitoring networks. However, sufficient land is available within NW074 to allow for the confident management of hydrogeology. The site meets this criterion.</p>

No.	Specific Factor	Criteria	Submissions	Response
8	Geological Stability	Located on stable ground; i.e., not in a seismically active area, areas susceptible to soil sinking, landslides or swelling, karst or sinkhole terrain.	<ol style="list-style-type: none"> 1. Comprises both Horseflat and Ruth land systems. The Horseflat is described as gilgaied clay plains but does include calcrete plain and slopes and drainage depressions. Any development site selected should probably avoid dissected slopes, drainage channels and depressions likely to be found within this site. Land mapped as Ruth land system is found east of the railway line and is described as hills and ridges of volcanic and other rocks supporting hard spinifex grasslands. (DA) 2. Site is on crab hole country. (KAR475, KAR476, KAR477) 3. The issue of 'crab hole' land may affect the liners of evaporation ponds or cause other structural problems if a precinct were to be built upon it. (ACE, CSA, KAR473) 	<p>1-3 The 3C acknowledges that much of the site is likely to consist of gilgaied soils, but believe sufficient land area is available within the site to meet this criterion. The 3C has advice that most of NW075 is underlain by gilgaied clays ("crab hole" country) but that NW074 has more competent geology made up of metamorphosed basalts and ultramafics which is suitable for locating a precinct.</p> <p><u>3C Conclusion:</u> The NW074 site meets this criterion.</p>
9	Acid Sulfate Soils	Not located on soils with high acid sulfate generating potential.	<ol style="list-style-type: none"> 1. Support the establishment of a HWTP subject to the precinct not being located on soils with high acid sulfate generating potential to the satisfaction of the DoE. (SoR) 	<p>1. There is insufficient information available to assess this criterion, however as this is a desirable criteria, the site cannot be removed from consideration on the basis of this criterion.</p> <p><u>3C Conclusion:</u> No mapping of acid sulfate soils available for site.</p>
10	Topography	Not located in an area with a slope >4 %.	<ol style="list-style-type: none"> 1. The slopes encountered east of the railway line are likely to be greater than the maximum 4% stipulated as an essential criteria. (DA) 	<p>1. The NW072 site immediately to the east of the railway line may be greater than 4%. However, the 3C is confident that sufficient land is available that meets this criterion.</p> <p><u>3C Conclusion:</u> There is sufficient land that meets this criterion.</p>
11	Threatened Flora, Fauna and Ecological Communities	Not within 500m of known habitats of threatened species of flora or fauna or threatened ecological communities except where the maintenance of threatened species or threatened ecological community values can be clearly demonstrated.	<ol style="list-style-type: none"> 1. No threatened flora, fauna and ecological communities are known to occur in the area based on desktop analysis, however finer scale on ground surveys would be required to confirm this, and would need to include survey for Priority Flora, as well as Declared Rare Flora and Fauna, significant fauna habitat and significant vegetation communities. (DCLM) 	<p>1. Noted. Based on information obtained to-date, the 3C is confident that there is sufficient land within the exhibited sites to meet this criterion. The 3C understand that more detailed studies will be undertaken to identify the best location within the exhibited site for a precinct during the approvals process. It is at this stage that detailed flora and fauna studies would be undertaken.</p> <p><u>3C Conclusion:</u> The site meets this criterion.</p>

No.	Specific Factor	Criteria	Submissions	Response
12	Conservation Value	No negative impact on national parks, nature reserves, or areas under conservation covenants.		
13	“Bush Forever” sites	Not within areas designated or proposed as ‘Bush Forever’ sites.		
14	Public Acceptability	<i>A minimum 3km buffer from the nearest sensitive land use, with a desirable buffer distance of 6km from the nearest sensitive land use.</i>	<ol style="list-style-type: none"> 1. I also agree with community concern that the proposed site is close to existing residential facilities (namely Karratha Station homestead, Heymans mining camp and Wemool Station homestead). Although, as single dwellings they fall below the “nearest sensitive land use” definition, the proximity of these dwellings should be considered. (KAR473) 2. Anywhere less than 20km from a town or community or occupied mining area is not a good enough buffer zone. (KAR474) 3. People live in proximity to the proposed site and they are opposed to the proposed use of the block. (Ind) 	<p>1-3. The 3km public acceptability buffer was negotiated between stakeholders to remove the potential for encroachment by areas zoned residential, hotels, motels and hostels, caravan parks, hospitals and nursing homes, schools and other educational establishments, shopping centres, some public buildings, and indigenous communities. This buffer is not related to the level of risk that may be associated with the establishment and operation of the precinct.</p> <p>The technology suitability criteria require that emissions are eliminated or minimised to ensure the protection of the community and the environment, including farming practices. It is these criteria, rather than the 3km public acceptability buffer, that are designed to protect all neighboring land users and individual farm houses from possible effects and emissions.</p> <p><u>3C Conclusion:</u> The site meets this criterion.</p>
15	Heritage Value	No negative impact on sites of recognised cultural or historical significance.	<ol style="list-style-type: none"> 1. It is noted that registered sites of Aboriginal significance are located in the northwest of the site, and the location of the site would need to avoid disturbance to these sites. (DCLM) 2. Aboriginal Heritage Values cited in the Glew Corporate Communication Report, require further archaeological and ethnological investigation by the Department of Indigenous Affairs. (MR) 3. There is the potential for Aboriginal Heritage sites to be identified in the proposed site which may make it unsuitable for industrial development (KAR473) 	<p>1-5 Based on information obtained to-date, the 3C is confident that sufficient land is available within the exhibited sites to meet this criterion. It is understood by the 3C that once a site has been selected more detailed studies will be undertaken to identify the best location within the exhibited site for a precinct. It is at this stage that detailed heritage studies would be undertaken.</p>

No.	Specific Factor	Criteria	Submissions	Response
			<p>4. A number of heritage sites are located in the general area of the proposed plant site. (Ind)</p> <p>5. There is a reasonable likelihood of sites connected with hunting and foraging occurring on the sites and the Indigenous heritage survey will need to be comprehensive in its coverage to allay some of the concerns the local people have. (Ind)</p>	<p><u>3C Conclusion:</u> The site meets this criterion.</p>
16	Transport Routes	Must be within 25km of major transport routes or suitable railway lines.		
17	Transport Routes	Any traffic on local roads must be within acceptable congestion and safety limits.	<p>1. Support the establishment of a HWTP subject to all truck transport routes to and from the precinct be identified and upgraded where deemed necessary by, and at no cost to, the Shire of Roebourne prior to any development commencing. (SoR)</p>	<p>1. Main Roads would be consulted on preferred transport routes if this site were recommended as a location for a HWTP. Road improvements and upgrades are a matter for Main Roads to assess.</p> <p><u>3C Conclusion:</u> The site meets this criterion.</p>
18	Emergency Services	Within approximately 25 minutes of adequate off-site emergency services including medical and firefighting facilities.	<p>1. Concern that local FESA volunteers are not currently equipped to deal with any potential hazardous incidents that may arise from the proposed HWTP. (KAR473)</p> <p>2. If a fire broke out could the volunteer firemen control a blaze of this nature, I think not, so FESA would have to train them! (KAR477)</p>	<p>1-2 This was set as a desirable criterion rather than an essential criterion in acknowledgement that on-site emergency services could be provided if required. The need for this can be better ascertained during formal assessment processes once specific treatment proposals have been put forward.</p> <p><u>3C Conclusion:</u> Site is within 25 minutes of adequate offsite emergency services. The site meets this criterion.</p>
19	Proximity to waste generating areas	Within 150km from where 80% of the waste it treats is generated.		
20	Land Ownership	Located on State Government owned land.		
21	Legislative Jurisdiction	Within the jurisdiction of Western Australian legislation, policies or regulations; i.e., not on Commonwealth land.		

No.	Specific Factor	Criteria	Submissions	Response
22	Equity/ employment	Within a reasonable commuting distance of a centre providing adequate facilities for a skilled workforce and their families.		
23	Services	Ability to provide adequate access to water, telephone and electricity.	1. Has a reasonable potable supply of water (100mm main) in the vicinity of the site. (WC)	1. Noted. The 3C maintains that water, power and telephone services can be made available to the site, however not all services are currently connected. <u>3C Conclusion:</u> The site meets this criterion.
24	Climate/ landform	Not in an area prone to frequent temperature inversions.	1. Support the establishment of a HWTP subject to the site not being subject to frequent temperature inversions to the satisfaction of the DoE. (SOR)	1. No further information on temperature inversions has come to hand during public consultation <u>3C Conclusion:</u> The site does not meet this criterion.

NON SITING CRITERIA MATTERS – NW072/074/075 9 (NEAR KARRATHA)

Table 2: NW072/074/075 (Near Karratha) - Environmental Issues

Issue	Raised By
Strong concerns about how to keep animals out to the HWTP and people eating contaminated animals.	KAR476
Support the establishment of a HWTP subject to any separation distance prescribed by the Environment Protection Authority must be wholly contained within the subject land and form part of the precinct.	SoR
The plant will pollute underground water it will also kill native fish, the blind gudgeon, the eel. Also the shrimp and other crustaceans (halosbaena tulk).	KAR477
Concerned about possible environmental effects of the plant, particularly on drainage, water and air quality.	Ind
<p>3C Response:</p> <ul style="list-style-type: none"> Fauna could be excluded from a precinct by a number of methods including fencing and nets. This will be a matter for the proponent and regulator to determine at the approvals stage. However the 3C expect water quality in the ponds could also be maintained at a level that minimises any risks to fauna. 3C Technical Paper E, <i>Draft Proposed Discharge Criteria and Management/Monitoring Issues for Evaporation Ponds</i> (2004) provides guidance on the water quality that could be achieved in the evaporation ponds. This paper is available on the 3C website at, http://www.3c.org.au/resource_library.php?cat=14&sc=17 The stringent Technological Suitability Criteria endorsed by Cabinet for technologies suitable for use within a precinct aim to eliminate or minimize emissions to air, land and water, this includes groundwater. When combined with the Site Selection Criteria they should ensure impacts to the environment can be managed. 	

Table 3: NW072/074/075 (Near Karratha) - Socio-Economic Issues

Issue	Raised By
Karratha nominated site would appear to be in potential conflict with resident's aspirations for future land use and the development/improvement of the Karratha/Tom Price access road.	PDC
The Pilbara Development Commission has noted considerable community concerns, expressed at the Karratha and Hedland Reference Groups, surrounding the proximity of Boodarie Industrial estate and Karratha NW072/NW074 and NW075 to residential populations, and this remains a significant issue for each community.	PDC
<p>3C Response:</p> <ul style="list-style-type: none"> The 3C notes these comments 	

Table 4: NW072/074/075 (Near Karratha) - Buffer Zone

Issue	Raised By
Support the establishment of a HWTP subject to a vegetative buffer of minimum 20 metres width of local indigenous species suitable to provide an effective screen of the precinct being established and thereafter, maintained as part of any lease agreement.	SoR
<p>3C Response:</p> <p>Noted. However vegetation buffers and landscaping at precincts is beyond the scope and control of the 3C but would be a matter for the proponent and regulator to determine at the approvals stage.</p>	

Table 5: NW072/074/075 (Near Karratha) - Precinct Model

Issue	Raised By
Support the establishment of a HWTP subject to an application to rezone the land to “industry’ under TPS8 being lodged and subsequently endorsed by the Minister for Planning prior to any development commencing.	SoR
Support the establishment of a HWTP subject to all building works within the precinct being subject to planning consent and the provisions of the Shire of Roebourne No. 8 Town Planning Scheme.	SoR
3C Response: Noted. However any zoning amendments are beyond the scope and control of the 3C and area matter for the DPI and the Government.	

Table 6: NW072/074/075 (Near Karratha) - Miscellaneous

Issue	Raised By
Site is a greenfields site that is not otherwise intended for disturbance, and is likely to require a larger footprint than if located in the Boodarie Industrial Estate, due to the need disturb areas to provide required infrastructure such as sealed roads, water, natural gas, power etc.	DCLM
There is concern whether there is sufficient land within either NW074 or NW075 that meets this criterion. DCLM have a preference for a precinct to be located on either NW074 or NW075, but not to be split across the two – due to the railway line and road currently separates them.	DCLM
Locating the site adjacent to major roads would detract from the visual amenity of the landscape. Locating the facility back from the road would be more desirable.	DoE
The Tox Free site along the Karratha-Tom Price Hwy has already obtained many of the environmental and heritage clearances, and is already disturbed. This site should be considered by the 3C in preference to the exhibited site.	CCI
Until the Karratha-Tom Price Hwy is constructed all access to the site would require a HI Access Road permit from Pilbara Iron.	DoE
Fox Resources Ltd Exploration Lease pending (E47/1202).	DoE, DOIR
DPI’s responsibility. No objection at his stage.	DPI
Being located on Karratha Station pastoral lease, livestock will be run in the vicinity of the site.	DA
The Maitland Industrial Estate would seem preferable, even though I understand it was eliminated from the initial nominations. Building the Maitland Industrial Estate would also provide the advantage of common sealed roads to access the estate.	KAR473
Department of Environment has not been effectively enforcing Seven Mile Creek as Shire of Roebourne states it does not have enough money.	KAR475, KAR476
Part of the State Agreement for facilities on the Burrup was for them to treat their own wastes.	KAR475
Petition with 450 signatures of Karratha community members opposed to locating the HWTP 11km from Karratha sent in by KAR474.	KAR474
Everyone objected to the site as it is frequently used for hunting and gathering and there was potential damage to the environment.	Ind
Although not in agreement with either of the proposed sites for HWTP the Aboriginal communities of the Pilbara agree with the need to establish a treatment plant so that hazardous waste produced in the Pilbara is better managed and disposed of properly.	Ind
3C Response: The 3C notes these factors raised by submitters.	

Key to Summary of Submissions Tables

Code	Received from
ACE	Alliance for a Clean Environment
ALP-Asb	Australian Labor Party Australind Sub-Branch
ALPSH	Australian Labour Party, South Hedland Sub Branch
BCC	Binningup Church of Christ
BCA	Binningup Community Association
BEDA	Bencubbin Economic Development Association
BGPA	Botanic Gardens and Parks Authority
BRLC	Bruce Rock Land Conservation District Committee
BRRCG	Bruce Rock Representative Community Group
CCI	Chamber of Commerce and Industry
CfH	Care for Hedland Environmental Association Inc.
CoB	City of Bunbury
CSA	Contaminated Sites Alliance: Mirrabooka Action Group
DA	Department of Agriculture
DCEP	Department of Consumer and Employment Protection
DCLM	Department of Conservation and Land Management
DoE	Department of Environment
DoEH	Department of Environment and Heritage
DoH	Department of Health
DOIR	Department of Industry and Resources
DPC	Department of the Premier and Cabinet
DPI	Department for Planning and Infrastructure
DSL	Dampier Salt Ltd
FESA	Fire and Emergency Services Authority
Kem338	Facilitation Group of the Kemerton Community Committee

Code	Received from
HC	Heritage Council
Ind	Indigenous Community Liaison as provided via Nyaarla Projects Pty Ltd in their report Aboriginal Community Liaison (May 2006)
KCCFG	KCC Facilitation Group (majority response)
KIPCC	Kemerton Industrial Park Coordinating Committee
KNS	Kalgoorlie Nickel Smelter & Concentrator – Nickel West
KRCG	Kalgoorlie Representative Community Group
LC	LandCorp
LCC	Leschenault Catchment Council
Kem200	Leeuwin Environment
LMCG	Lake McDermott Catchment Group
LPA	The Leschenault Progress Association
MMRCG	Bencubbin Waste Treatment Precinct Reference Group
MR	Main Roads
NTN	National Toxics Network Inc
OIC	Office of the Information Commissioner
PAN	Pollution Action Network
PDC	Pilbara Development Commission
PG	Pilbara Greens Local Group
PHCCI	Port Hedland Chamber of Commerce and Industry Inc
Kem329	Riverlinks Child Care and Community Centre
SBDC	Small Business Development Corporation
SIPH	Soroptimist International Port Hedland
Kem345	Shire of Capel
SoC	Shire of Coolgardie
SoDard	Shire of Dardanup
SoH	Shire of Harvey Council
SoMM	Shire of Mt Marshall

Code	Received from
SoN	Shire of Northam
SoR	Shire of Roebourne
STAR	STAR Alliance
Kem342	South West Environment Centre Inc.
TKAN	The Kemerton Action Network
ToN	Town of Northam
ToNS	Town of Northam Supplementary Submission
TPH	Town of Port Hedland
WAI	Wedgfield Association Inc
WC	Water Corporation
Kem40	Wildflower Society of WA Inc.
A17	Wheatbelt Development Commission
WCS	Wetlands Conservation Society