Attachment 6: Schedule of Submissions

Referral Agency	Referral Comments	Applicant's Response	Officer Response
DPLH (LUM Division)	No comment	N/A	N/A
DPLH (Regional North LUP Division)	No comment	N/A	N/A
DBCA	a) A site-specific fauna survey has not been undertaken to inform the proposal. b) Development site provides potential habitat for the northern quoll listed as a threatened fauna under the BC Act, and Priority-listed Airlie Island Ctenotus (priority 3). c) Occurrence of numerous species of conservation significant shorebirds in the vicinity of the proposed facility including threatened species such as great knot, Eastern curlew, the curlew sandpiper and other migratory shorebird species protected under the BC Act. d) Should take or disturbance (as defined by the BC Act) of threatened fauna including shorebirds and/or northern quoll is considered unavoidable during the construction and operation of the algae farm, Ministerial authorisation under Section 40 of the BC Act will be required.	No fauna survey was submitted as part of the Development Application (DA). It is understood that a terrestrial or marine fauna survey is not required at this stage.	Further correspondence with DBCA noted that no further additional terrestrial or marine fauna surveys were required. This was on account of information provided being consistent with the information provided in the Department of Climate Change, Energy, the Environment and Water's (DCCEEW) Protected Matters search tool.
	e) Artificial light has potential to adversely impact terrestrial fauna, DBCA recommends best practise artificial light management be considered within the CEMP and implemented in accordance with the *National Light Pollution Guidelines for Wildlife including marine Turtles, Seabirds and Migratory Shorebirds.*	The CEMP provided post lodgement refers to light impact on pilots and the Airport. If necessary, the requirement for an updated CEMP can be conditioned to be provided following approval.	Noted – condition recommended that all artificial light impacts on both the aiport and the broader environment be considered as part of the CEMP with the CEMP being updated if required.
	f) Proposed algae farm is within close proximity of several priority ecological communities (PEC). Although the development envelope is not directly intersecting any PEC systems, DBCA recommends disturbance to PECs through indirect impacts is avoided. Utilisation of existing tracks (where possible) and through implementation of	Noted.	Noted.

	appropriate weed management practises throughout the development should minimise impacts on the PECs.		
	g) DBCA notes that a site-specific flora survey does not appear to have been undertaken to inform this proposal.	No flora survey was submitted as part of the DA.	Noted – Upon further discussion with DBCA it was determined that no additional flora surveys were necessary.
	h) Eight flora species of conservation significance have been recorded in the local area, comprising of seven Priority 3 flora species and one Priority 3 flora species. None of these species however occurs within the project area and no suitable habitat is found on site. DBCA recommends that disturbance to conservation-significant flora species (i.e., priority flora) is avoided in the first instance and minimised where the impacts are unavoidable.	Noted.	Noted – Advice note regarding the need to obtain a section 40 ministerial authority under the *Biodiversity Conservation Act 2016* may be required where a take or disturbance is proposed.
	i) Noted that native vegetation clearing permits (CPS8414/1 & CPS992/1) have been applied for. Impacts to threatened and priority fauna should be avoided in the first instance, or minimised where avoidance is not possible.	Noted.	Noted – see above advice note recommendation.
	j) Use of Esfenvalerate to manage invertebrate within ponds and piscicides to reduce fish populations within sweater storage ponds, could be toxic to organism in the adjoining aquatic environment. Given that it is proposed to discharge water from the ponds to surrounding environment, it is recommended that further information is provided by the proponent to demonstrate that impacts from these chemicals to non-target fauna can be avoided. Additional Comments received 27/04/023. DBCA's Pilbara Region has sought advice from technical experts in DBCA's Marine Science Program and Species and Communities Program, and from Murdoch University's Freshwater Fish Group and Fish Health Unit.	Detailed response to the use of Esfenvalerate provided to the City under separate cover on the 15 March 2023. Management of the use of Esfenvalerate to be conditioned on approval	Noted. Applicant provided futher information on the use of Esfenvalerate for consideration by DBCA. Recommended that condition of the use insecticides to be imposed by way of an Operational Environmental Management Plan (OEMP).

	<u>Conservation significant marine fauna</u> Based on the advice received, conservation significant marine fauna species that utilise the intertidal creek systems and nearshore habitat include: • Green sawfish (Pristis zijsron) (Vulnerable) juveniles are known to have an initial small home range, with females appearing to reproduce within the same location to which they were birthed. • Green turtles (Chelonia mydas) (Vulnerable) are known to use intertidal creek systems as refuge from predators and foraging grounds throughout the Pilbara region. • Flatback turtles (Natator depressus) (Vulnerable) use Nickol Bay as an inter-nesting and foraging grounds; with hatchlings and post-hatchlings being likely to use these habitats. • Other turtle species including hawksbill (Eretmochelys imbricata) (Vulnerable) and loggerhead (Caretta caretta) (Endangered), are present in the Pilbara region and potentially use this habitat. • Humpback whales (Megaptera novaeangliae) (Critically Endangered) use Nickol Bay during migration as a transition or resting area, particularly mother whales with calves. • Australian humpback dolphin (Sousa sahulensis) (Priority 4) are known to use the creek systems throughout the Dampier area. • Dugong (Dugong dugon) (Migratory) are present in Nickol Bay, foraging on local seagrass meadows. This information is consistent with information provided in the Department of Climate Change, Energy, the Environment and Water's (DCCEEW) Protected Matters search tool that identifies the area as providing habitat for conservation significant marine and terrestrial fauna (including state and nationally listed threatened species). Based on this available information, DBCA does not consider that additional terrestrial or marine fauna surveys are required, at this stage, to inform the assessment of the development application.	It is understood that a additional terrestrial or marine fauna surveys are not required at this stage.	Further correspondence with DBCA noted that no further additional terrestrial or marine fauna surveys were required. This was on account of information provided being consistent with the information provided in the Department of Climate Change, Energy, the Environment and Water's (DCCEEW) Protected Matters search tool.
	<u>Proposed insecticide and piscicide use</u> DBCA notes that the proposed Environment Assessment Report (2022) submitted by the proponent to support the development application suggests that the insecticide, Esfenvalerate, will be used to manage invertebrates within the algae ponds, and piscicides to reduce fish	Noted. See above comments. Management of Esfenvalerate to be conditioned to not be used during flood risks.	Noted. Applicant provided futher information on the use of Esfenvalerate for consideration by DBCA. Recommended that condition of the use insecticides to

	populations within the seawater storage ponds. It is noted that these chemicals are considered to be potentially toxic to organisms in the adjoining aquatic environment. The proponent subsequently suggested that the chemical Vertimec may be used instead of Esfenvalerate. Vertimec is also to be toxic to marine organisms. As outlined in the information provided by the proponent, the active ingredient of Vertimec (abamectin) is identified as an environmentally hazardous substance and marine pollutant; not readily biodegradable, slightly mobile in soils and has a degradation half-life of twelve to fifty-two days in soil which could result in chemical exposure following surge or high rainfall events. The condition for use specifies to: DO NOT use the chemical if it is likely that rainfall will result in lake water runoff. Considering the unpredictable nature of rainfall events (as demonstrated by the unseasonable rain that occurred in 2022) within the Pilbara region the potential for “off label” use should be considered. The critical use comments specifies: DO NOT discharge treated water into natural aquatic habitats. Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers. Toxic to native mammals and birds. Use deterrents to discourage birds from foraging at the site during treatment such as lamonty raptor kites on long telescope poles if required. Further information (Safety Data Sheet and APVMA permit) has not been provided by the proponent for the Esfenvalerate and piscicides. The potential for bioaccumulation of the Esfenvalerate and piscicides should be considered within the marine food chain including foraging turtles, in particular juvenile turtles or through prey flora species and supporting habitat for prey flora, dugong foraging exclusively on seagrass. Based on the information provided by the proponent regarding the chemical use, insufficient information has been provided to indicate the potential impacts to conservation significant species and their associated habitats can be avoided through the use of the proposed insecticides and piscicides. DBCA recommends impacts to threatened and priority fauna		be imposed by way of an Operational Environmental Management Plan (OEMP). Applicant also provided permit for the use of Vertimec as a preferred insecticide. The permit issued falls within the jurisdiction of the **DoH/DWER.** The recommendation of an OEMP by the DBCA is to be included as an advice note on the basis that the regulatory authority for OEMP’s falls to DBCA. An advice note regarding the requirement for an OEMP to the satisfaction of DBCA is recommended for inclusion.

	should be avoided in first instance, or minimised where avoidance is not possible.		
	The proponent should be advised that a Ministerial authorisation under section 40 of the Biodiversity Conservation Act 2016 (BC Act) is required where the take or disturbance (as defined by the BC Act) of threatened species (critically endangered, endangered or vulnerable) is considered unavoidable. DBCA's Species and Communities Program is responsible for administering section 40 Ministerial Authorisations to take or disturb threatened species. As provided for in section 41 of the BC Act, conditions may be imposed to mitigate or offset the impact that an activity carried out under the authorisation is likely to have on the total known population of the relevant species in the state and on relevant habitat. For more information, please advise the proponent to contact SpeciesandCommunities@dbca.wa.gov.au.	Noted. Risk of Section 40 can be included as an advice note or conditions of approval if necessary.	Noted – Advice note included.
	The proponent could provide an Operational Environmental Management Plan that outlines alternative methods to manage invertebrates and fish within the algae farm that would avoid adverse impacts to non-target fauna or provide information to demonstrate that no adverse impacts will be made to conservation significant species and the surrounding habitat from the use of the chemicals. For information on potential impacts from the use of these chemicals to other fauna, including fish, within the marine environment, the City of Karratha could contact the Department of Primary Industries and Regional Development (DPIRD) (Fisheries).	A CEMP was provided to the City post lodgement of the DA. The requirement for an updated CEMP can be conditioned to be provided following approval.	Noted – see comment above about advice note that DBCA to be provided a OEMP.
	Conservation significant terrestrial fauna As previously advised, DBCA records indicate the area proposed for development provides potential habitat for the northern quoll (Dasyurus hallucatus) listed as threatened fauna (Endangered), protected under the Biodiversity Conservation Act 2016 (BC Act) and the Priority Airlie Island Ctenotus (Ctenotus angusticeps) (Priority 3). Records also indicate the occurrence of numerous species of conservation significant shorebirds in the vicinity of the proposed development, including species listed as threatened and migratory under the BC Act. As advised previously, the proponent should contact DBCA's Species and Communities Program to	Noted.	Noted.

	determine if a Ministerial authorisation under section 40 of the Biodiversity Conservation Act 2016 is required. Should the City of Karratha consider that the proposal is likely to have a significant impact on the environment or have impacts on matters of national environmental significance protected under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act), referral to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) or the Environmental Protection Authority (EPA) under the Environmental Protection Act 1986 (EP Act) may be required.		Application was referred to EPA who advised that the proposal did not require referral.
DWER	a) Based in the information provided and the fact this development application is an amendment to a previously approved development, DWER are of the opinion this proposal is deemed not significant on the environment and is not required to be referred to the EPA under s38 of the *Environmental Protection Act* (EP Act) *1986*.	Noted.	Noted.
	b) The development is subject to Part V of the EP Act Native Vegetation Regulation legislation and the *Rights In Water and Irrigation* (RiWI) *Act 1914*.	Noted.	Noted
	c) The proposed activities occur within the proclaimed Pilbara groundwater and surface water areas an are subject to licencing requirements under the RiWI. Disturbances to the bed or banks of a water course in association with the taking or diverting of water may required a Section 17 permit.	Noted.	Noted – Advice note included.
	d) If the proponent intends to use groundwater or surface water for any purpose, they will need to apply for a 5C licence to take water, and a 26D licence if new water supply bores are needed	The proposed development does not include the use of groundwater for any activities.	Noted.
	e) Based on the information provided, the proposal does not appear to be a Prescribed Premises under the EP Act however it is not clear what waste products may be produced by the on-site processing operations. It is the applicant's responsibility to provide relevant information in relation to Part V Division 3 of the EP Act, and therefore whether a works approval, licence or registration is required.	The proposed development does not create standard 'waste' products as the algae farms receive bitterns (a waste product) for the production of salt which is used to grow the algae. Once the farms have depleted the bitterns of carbohydrates it is then returned to the bitterns channel.	Noted.

	f) The EP Act makes it an offence to undertake any work which causes a premises to become, or become capable of being, a Prescribed Premises unless the work is undertaken in accordance with a works approval. It is also an offence under the EP Act to cause an emission or alter the nature or volume of waste, noise or odour from the Prescribed Premises, unless done so in accordance with a works approval or licence or a registration (for operation) is held for the premises.	Noted. See above comment.	Noted.
	g) The Department granted Clearing Permit CPS 8414/1 on 10/6/2020 to WRS Bioproducts Pty Ltd to clear 266.34 hectares of native vegetation within a portion of the proposal footprint for the purposes of aquaculture. This clearing permit is not sufficient to cover the clearing proposed in relation to this planning advice.	Noted.	Noted – additional permit lodged.
	h) The Department received a Clearing Permit application CPS 9926/1 in November 2022 from WRS Bioproducts Pty Ltd to clear 60.87 hectares of native vegetation within the reminder of the proposal footprint for the purposes of aquaculture. This application is currently under assessment. The extent of clearing specified in the clearing permit application appears to be consistent with the clearing proposed in the Development Application.	Noted. A new clearing permit has been filed for this application.	Note – advice note included.
	i) Acid sulphate soils (ASS) risk mapping indicates that the site is located within an area identified as representing a high to moderate risk of ASS occurring within 3 metres of the natural soil surface. Please refer to Department of Water and Environmental Regulation's (DWER) acid sulphate soil guidelines for information to assist with the management of ground and/or groundwater disturbing works.	Noted. The management of acid sulphate soils is addressed in the update CEMP, provided to the City post lodgement.	Noted – matter included within CEMP condition.
	j) The 2-D hydraulic model presented in WRS Bioproducts Karratha Hydrology Report (2022) within Appendix F has been verified as meeting industry standards, and incorporates appropriate recent Lidar data obtained in November 2020. 10% AEP and 1% AEP flows down 7 Mile Creek with local flooding were modelled in the hydraulic model with no storm surge tailwater. The downstream boundary was assumed to be free-flowing and dry. This was appropriate to design the infrastructure for the site. However DWER recommend the report includes depth difference and velocity difference maps of pre- and	Noted. An updated Hydrology Report has been prepared and submitted to the City addressing relevant considerations.	Noted – amended report has been provided to the City, reviewed and is considered acceptable.

	post-development. This would demonstrate more clearly the impacts of the development to surrounding areas including the airport. k) In addition, to fully assess impacts to existing development outside of the site, DWER recommend an additional scenario is modelled to consider a boundary condition with a storm surge of 1 in 5 AEP (~ 2.5 m AHD) with local flooding and Seven Mile Creek flow. In terms of development levels, the results of the Karratha Coastal Vulnerability Study (2012) show the following flood levels: 1 in 10 AEP 4.8 m AHD 1 in 100 AEP 5.7 m AHD 1 in 500 AEP 6.9 m AHD Based on our floodplain management strategy for the area, a minimum habitable floor level of 6.2 m AHD is recommended to ensure adequate flood protection for any buildings. Please note that this advice is related to storm surge (inclusive of sea level rise) and major flooding only and does not take into account local stormwater drainage.	See above comment regarding Hydrology Report.	Noted.
DMIRS	a) There is a 100% encroachment on both granted M 47/1572 and pending M 47/1629, held by Access Mining Dampier Pty Ltd. The company was contacted via their tenement holders 16/12/2022 and again 17/01/2023 as correspondence can be difficult over this time period. As of 01/02/2023, no comment has been provided and we therefore assume this to be the response. However, direct dialogue between the proponents would be our preference to ensure there is no land use conflict. b) Plans for the proposal overlap with the Mining lease and MINEDEX point S0236556 - Magnesium Recovery Processing Plant, EcoMag Environmental Group. Direct dialogue between the proponents would be our preference to ensure there is no land use conflict. c) DMIRS lodges no objections to the above application.	Noted.	Noted – no further action required.
JTSI	a) It is noted of the proximity of the proposed algae farm operations to Dampier Salt Ltd, who's operations and activities are held pursuant to	Noted.	Noted. Points c) & d) to be included as potential advice notes

	the *Dampier Solar Salt Industry Agreement Act 1967* (State Agreement). It is noted that the proposed footprint supplied does not encroach or interfere with the tenure held pursuant to the applicable State Agreement. b) JTSI and Dampier Salt Ltd have no objections to the proposal. c) The supply or access to bitterns from the channel (Section 5.3.3 of the Planning Report provided), required the written consent of the Minister for State Development, pursuant to the State Agreement. d) From the layouts provided, there is expected to be no material back flow into Dampier Salt Ltd operations from the channel where potential effluent would be disposed. For Dampier Salt Ltd it is an outflow channel and the disposal of any effluent into our G47/2 is a subject to Disposal Management Plans which may need to be amended.	Noted. Noted. Noted.	
DPIRD	No comments received.	N/A	N/A