PBS 60M ROAD TRAIN COMMUNITY CONSULTATION FOCUS GROUPS

Additional Questions and Answers

NOTE: *These questions are derived from recordings of the Focus Group sessions and from written feedback forms*

A. MINERALS EXTRACTION AND LOADING

1. **Can KMS clarify how the mineral sands are extracted at the mine?**
   Topsoil and overburden are removed and stockpiled, and mineral sands will then be extracted using surface mining methods. Heavy minerals are then extracted through gravity and magnetic processing and the remaining material is returned as backfill as part of the continuous mine rehabilitation process. More information is available in the Mineral Sands Mining factsheet available on our website.

2. **Are any chemicals used in the mining process in relation to the minerals production?**
   The chemicals used are a flocculant and coagulant which are both used to remove clay fines (slimes) from the slurry. This allows us to recover water for re-use in the process.

3. **How are the mineral sands loaded into the rotainers?**
   A front-end loader is used to load the mineral sands into the rotainers at the mine.

4. **How well sealed are the rotainers and how much dust will come from this?**
   A sealed lid clamps onto the container to prevent any mineral sands spillage or dust.

5. **How are the mineral sands loaded into the ship – and is there any dust suppression when it is being loaded?**
   The rotainers are loaded down into the hull using port cranes and then tipped to release the mineral sands into the hull. Additional dust suppression measures will be confirmed once a shipping contractor is appointed.

6. **Has research been done on loading ships with mineral sands from rotainers and is this done anywhere else in Australia? Have any environmental studies been done on this?**
   Rotainers have been used throughout the world including in Australia for many years in containerised bulk material handling, including for mineral sands. The EPA license conditions will consider the environmental impact.

7. **Are the mineral sands dry or wet (i.e., is water added), when transported?**
   Water is not specifically added but drains naturally from the stockpiled material, so the mineral sands have approx. 5-6% moisture content when transported.

8. **Will road trains and rotainers be washed down to minimise dust issues?**
   Yes, a regular washdown procedure will be in place.

9. **What is the weight of a rotainer when it is fully loaded for transport?**
   These details are still being finalised by the logistics contractor, however, will be between approximately 25 and 30 tonnes.

10. **Will the Broome Port shut down while the KMS ships are loading and what is the impact on the recreational boating that require access through the Port area?**
    The Kimberley Ports Authority (KPA) is responsible for managing and operations at the Port. However, KMS shiploading will not occur when live export boats are loading or when cruise ships are in the Port. KPA advises that access to the boat ramps will not be restricted when ship loading is occurring.

11. **How long are the KMS ships alongside the wharf and how often will they be in Port?**
    The proposed ships are between 100 and 130m long, take 40,000 tonnes of product and take approx. 4-6 days to load. It is expected there will be approximately 34 ships per year when the mine is operational.

12. **Is the access for the port two-ways, so the trucks can go out and back?**
    Yes. The Kimberley Ports Authority is responsible for managing access in the port area.

13. **Have any programs been done to show which ships will be in the port at any time and can this be provided to the public?**
    Information about the KPA Shipping Schedule is available at:
    https://www.kimberleyports.wa.gov.au/port-operations/shipping-schedule

B. TRANSPORT

14. **Please advise how the EPA came up with the limit of 'less than 50' trucks each way?**
    The approval was based on the projected maximum output of the mine of 1.6 million tonnes of product per annum.

15. **Why does KMS want to use Performance Based Standard (PBS) 60m road trains?**
    PBS 60m road trains have many additional safety mechanisms compared to standard 53.5m road trains.

    Further information is available at https://www.mainroads.wa.gov.au/globalassets/heavy-vehicles/getting-a-permit/pbs/pbs-60-metre-road-train-factsheet.pdf.

16. **Why is Broome being used as a port when Derby is available? Do all the trucks need to come through Broome?**
    The Port of Derby requires transshipping of bulk product onto a barge and then from the barge onto the bulk carrier moored in deeper water. No double handling or transshipping is required at the deepwater Port of Broome where additional infrastructure improvements also facilitate container handling.

    However, the approvals allow shipping from both Broome and Derby, which provides operational flexibility.

17. **Could there be a compromise to take half of the product out through Derby and half out through Broome to limit the impacts on Broome?**
    Broome is currently the preferred port to take all the product due to available infrastructure and efficiencies.

18. **Why is KMS proposing to run 26 road trains each way, when the approval is for less than 50?**
    While the approvals allow for less than 50 road train round trips per 24-hour period, the projected production levels only require up to 26 round trips during the first phase of the mine (approx five years).

19. **What does KMS need to do to proceed using the 60m Performance Based road trains?**
    A permit is required from Main Roads to use the Performance Based Standard 60m road trains. As part of the permit application, we were required to undertake Community Consultation and develop a Traffic Impact Assessment and Cartage Management Plan.

20. **How many trucks will be in the fleet?**
    Approximately 14

21. **When will the truck movements begin?**
    Initial commissioning and trial activities will take place in late 2023, with the first full shipments anticipated in early 2024.

22. **How many road trains currently use Gubinge road now?**
    Main Roads have recently undertaken traffic counts on the Gubinge Road corridor, and the data will soon be publicly available on the Main Roads traffic digest.

23. **Where will the laydown / storage area be to store the rotainers?**
    A number of sites in close proximity to the port are being investigated in conjunction with the necessary agencies and contractors, and a decision will be made soon.

24. **Has noise monitoring been undertaken to measure the potential noise impacts of the road trains along the route?**
    Yes, baseline noise monitoring has been undertaken by expert consultants in both the wet and the dry season.

25. **Will the road trains run for 24 hours a day and 7 days a week?**
    Standard 53.5m road trains are already permitted to run 24 hours a day; 7 days a week. The Cartage Management Plan submitted by Campbell Transport to Main Roads for consideration includes a proposal for 24/7 operation based on the benefits of driving when there is less other vehicle and non-vehicle traffic on the road.

26. **If approval isn't given from Main Roads to use the Performance Based 60m Road Trains will KMS use the 53.5m road trains?**
    Yes, however our preference is to use the Performance Based 60m Road Trains due to their improved safety features.

27. **How much more capacity do the Performance Based 60m Road Trains have than the standard 53.5m vehicles and how many less trips per day will be required as a result?**
    The Performance Based 60m Road Trains have potential for greater capacity which will reduce the number of trips. At this stage loadings are still being calculated based on the type of rotainers chosen.

28. **Does reducing the speed of the trucks reduce the noise? If so, is this an option?**
    Management of speeds can impact noise levels. Reduction of speed at certain times of day have been considered as part of the Traffic Impact Assessment and Management Plan.

29. **Will the 60m Performance Based road trains be new, and if so, have they already been ordered?**
    Yes, Campbell Transport will be ordering new prime movers to ensure the most modern vehicle with the best road safety features are available.

30. **If the road trains can't run for some days due to things like flooded roads/ wet season or road works, what will KMS do – will they make it up by running the road trains more frequently on other days?**
    If access is restricted, additional trucks may run on other days within the limits of the EPA approval, i.e., less than 50 round trips per day.

31. **Has there been any feasibility study in using other means of getting the ore to the port, i.e., a railway or a sealed conveyer belt thus alleviating the need for trucks to come into town at all?**
    Yes, however alternative methods are not currently feasible and would have greater environmental impact.

32. **Can sound barriers be installed along the transport route to mitigate noise issues / Can barriers (not concrete walls) be installed between Gubinge and Minyirr Park to improve safety?**
    Noise mitigation strategies are being considered as part of the Traffic Impact Assessment and Management Plan.

33. **Is there a proposal to put in overtaking lanes on the roads outside of Broome and either dual lane Port Drive or add turning lanes on Port Drive to facilitate overtaking and vehicles turning into the side roads?**
    Road improvements are the responsibility of Main Roads WA. KMS has provided a copy of the consultation report outlining the community's road safety concerns.

34. **Can the Performance Based 60m vehicles be managed for speed and can they access any road?**
    The advantages of the Performance Based 60m vehicles are that they are fitted with geo-fencing which can be set to specific driving conditions to manage speed, noise etc. They are also equipped with real time monitoring to ensure drivers are abiding by the conditions. They are restricted to certain roads in the same way that standard triple road trains are.

35. **Has KMS considered the impact on the lifestyles of the large bike riding groups that often cycle along Gubinge Road and Port Drive to the Port?**
    Gubinge Road and Port Drive are designated heavy haulage roads to the Port and are currently used by road trains and cyclists. However, the Traffic Impact Assessment and Management Plan will consider use of the roads by cyclists and other road users.

36. **Does KMS know if Main Roads or the Shire will undertake work to improve pedestrian crossings or install pedestrian bridges over Gubinge Road?**
    KMS understands that Main Roads would need to undertake significant studies to support a business case before investing in road upgrades / redesign. Any pedestrian crossing infrastructure improvements on Gubinge Road would be the responsibility of Main Roads. A copy of the consultation report outlining the community's concerns and ideas has been provided.

37. **Can the trucks stop in time to avoid collision with people/children crossing the road?**
    The ability for any vehicle to stop to avoid a collision is dependent on many factors. However, the PBS 60m road trains will be brand new, utilise the latest technology including infra-red sensors and have many more advanced safety features than existing 53.5m road trains.

38. **Who pays for windscreens if damaged by the trucks?**
    Damage to windscreens can occur as a result of all types of vehicles. It would be normal for most individuals to have windscreen replacement as part of motor vehicle insurance.

39. **Has KMS considered using electric vehicles?**
    Use of electric vehicles will be considered when they become a viable option in the future due to the potential environmental and cost benefits. Currently electric vehicles are not available that have the capacity and range to transport the mineral sands to and from the mine.

C. ROADS

40. **Has KMS considered the impact that will occur when Port Drive floods and the additional repairs that will be required because of the movement of the road trains on the roads? (Not just the additional cost of the repairs but the impact of the additional concrete going into landfill?)**
    Port Drive is an approved heavy haulage route to the Port and currently accommodates 53.5m road trains. However, its condition and the issues of flooding will be considered in Traffic Impact Assessment and Management Plan.

41. **Will the roundabouts be able to accommodate the quad road trains – particularly the roundabout to Cape Leveque which has very narrow road widths around a large roundabout?**
    The roundabouts are located on a Main Roads approved heavy haulage route and are designed for use by all road trains.

42. **What is the impact to the road from the performance based 60m road trains compared to the standard 53.5m road trains?**
    The Performance Based 60m road trains have a 20% to 30% higher payload than the 53.5m road trains, however as the weight is distributed across more axles the impact is similar.

43. **Has the impact of widening Port Drive been considered?**
    Any road improvements works are the responsibility of Main Roads and will be subject to a business case which considers all impacts.

44. **Will KMS pay for use and upgrade of the roads or will taxpayers have to pay for this?**
    In addition to standard registration fees, KMS is required to pay an additional levy to Main Roads once the tonnage carted reaches 300,000 tonnes per annum. It is projected that mine will produce a maximum of 1.6 million tonnes per annum, which is reflected in the MS1080 approval.

D. ENVIRONMENT / MINERAL SANDS COMPOSITION

45. **Will there be dust suppression when loading the mineral sands into the ships?**
    Details of the dust suppression to be implemented will be confirmed once a shipping contractor is appointed.

46. **Are the mineral sands radioactive?**
    Mineral sands can be split into 3 major categories, magnetic concentrate, non-magnetic concentrate, and para magnetic.

    All mineral sands products contain varying amounts of naturally occurring radioactive material (NORM) through the radioactive elements uranium and thorium and their radioactive decay products. Radiation levels are measured in Becquerel (Bq).

    Levels in the mineral sands mined at Thunderbird are below 10 Bq / gm which is a safe level to handle and transport without any additional controls.

47. **Are there any specific permits required for mining the mineral sands related to the radioactive levels?**
    As the radiation levels are below 10 Bq / gm, KMS does not require any specific permits.

48. **What is the process for mine rehabilitation?**

Thunderbird is a typical dry-mining mineral sands operation whereby a moving void extracts the valuable mineral sands, with waste materials returned to the void enabling progressive rehabilitation of the mined area. Initially topsoil and overburden are excavated and transported using a truck and excavator and then stockpiled for future use.

Retaining cells are constructed in the developed mine void for the return of process tails. Topsoil is returned in a continuous rehabilitation process and replanted with native vegetation. More information is available on the Mineral Sands Mining Factsheet available on our website.

49. **Will the use of water for the mine impact the water in Broome given all water in the Kimberley is connected?**

Environmental studies conducted as part of the MS1080 approval process do not predict any impact on Broome's water. More information is available in the Water Management Factsheet available online.

50. **Who is going to pay for the water usage and waste removal?**

Operational costs associated with mining and transporting the mineral sands will be the responsibility of KMS and appointed contractors.

51. **Has there been any environmental impact assessment undertaken for the mine and transport of the Mineral Sands?**

Extensive environmental studies were required in order to obtain the MS1080 environmental approvals. More information is available at https://www.kmsands.com.au/our-projects/thunderbird/2017-public-environmental-review .

52. **Has there been any studies to assess the impact on wildlife/animals from the transportation of the mineral sands?**

Extensive environmental studies were required in order to obtain the MS1080 environmental approvals. More information is available at https://www.kmsands.com.au/our-projects/thunderbird/2017-public-environmental-review

53. **Are KMS relocating fauna and has KMS considered the impact on the Bilby?**

Yes, extensive surveys are carried out prior to any clearing taking place to identify any fauna required to be relocated. A Bilby Offset fund and program is a condition of the MS1080 approval. More information is available at https://www.kmsands.com.au/our-projects/thunderbird/2017-public-environmental-review

E. ECONOMICS, EMPLOYMENT & HOUSING

54. **How many staff and contractors will KMS employ?**

The projected workforce is a total of approximately 300 staff, of which 130 will be directly employed by KMS and the remaining by contractors. KMS currently employs nearly 100 staff, and this will increase over the next few months as we transition from construction to production.

55. **Why is this necessary for Broome? Are there any benefits to Broome?**

Production is also a year-round operation with consistent economic benefits across all months. The net contribution to Gross Domestic Product in Australia is forecast to be in the region of $2 billion across the first 20 years of mine operation.

Thunderbird will create around 300 additional direct jobs between KMS and our primary contractors. Importantly most employees and their families will be resident year-round in either Broome or Derby, contributing to the local economy and community.

We have a target of minimum 40% Aboriginal employment by Year 8 of the project, and a minimum spend of $2 million per annum with local Aboriginal businesses once production commences until Year 4, $5 million from Years 5 to 7, and $10 million from Year 8 onwards.

$57 million has already been spent with Kimberley businesses in establishing and constructing the mine. The number of local businesses engaged and local spend will grow once production starts. These figures will be regularly reported to the community.

More information can be found on the Economic Benefits Factsheet online.

56. **Will the workforce be sourced locally or FIFO?**

Our employment strategy is to have as many staff as possibly living in Broome, Derby, and surrounding communities to maximise benefits to local communities. We have the same expectation of our contractors, however there may be a few roles that are initially FIFO.

57. **What training will be provided to staff?**

We employ Training Specialists and Supervisors who conduct training needs analyses to personalise training requirements for individual roles. General staff training for all employees includes cultural awareness, workplace safety and first aid.

58. **What is KMS doing to house its workforce when there is already a lack of housing in Broome?**

We have a multi-pronged housing strategy that includes housing purchase incentives for employees and working with local investors and builders to develop additional stock for long term lease.

59. **Will the truck driving staff be local?**

Campbell Transport, our logistics contractor, are recruiting locally wherever possible.

60. **What benefits will KMS provide to the Traditional Owners?**

KMS and the Joombarn Buru Traditional Owners have a Co-existence Agreement that sets out a raft of benefits for the duration of the project. An Agreement with associated benefits is also in place with Walalakoo Aboriginal Corporation for the Nyikina Mangala people. Thunderbird will offer long-term co-creation opportunities for education and training, business development and capacity building

During construction nearly $10 million has been spent to date with 11 Aboriginal businesses and this is projected to increase once mine production commences and local capacity increases. A joint venture is also proposed between Campbell Transport and the three groups of TOs along the transport route.

We also have a target of 40% Aboriginal employment by year 8 of the project, with traineeships and apprenticeships, and entry level ‘New to Mining’ roles to commence once production starts.

Spend targets with local Aboriginal business are also in place, being $2 million in Years 1 to 4, building to $5 million by Year 5 and $10 million from Year 8.

61. **How will housing prices and businesses be affected by driving Road Trains through Broome?**

It is unlikely that prices will be affected by the project as housing prices and the cost of living are impacted by a wide range of external factors.

62. **When was Broome designated as a logistics hub?**

Development of logistics precincts is a key pillar of the Broome Growth Plan developed in 2016 and included in the Shire of Broome's Strategic Community Plan 2023-2033 and Corporate Business Plan 2023-2027.

E. OTHER

63. Where does the raw material go to?

The mineral sands will be exported to China where they are used in the production of everyday items including paint and ceramics. More info on uses is available in the Mineral Sands Mining Factsheet available on our website.

64. Would safety education around road trains be useful?

Yes, road safety education will be a key consideration in future communications.

65. Will KMS be investing in the community via sponsorships or other programs to build a better relationship with the community?

Yes. We will be establishing a local Community Investment and Partnerships Program in 2024 to support local community organisations and initiatives.

66. Why didn't the EPA consult the community regarding the change of plans to transport the mineral sands through Broome?

It is our understanding that the EPA did not assess the change to transporting via Broome as being significant and determined that additional consultation beyond that already conducted as part of the Public Environmental Review in 2017 was not required.

67. Should an environmental impact study be undertaken specifically for Broome if the original EPA study was done assuming shipping would be from Derby?

The s45C amendment (granted in November 2022, relating to shipping from Broome), was approved by Environmental Protection Authority and they determined that this was not required.

68. Was a social impact assessment undertaken in relation to the development of a mine and transportation of the minerals through Broome? If not – why not?

Due to the size of the project, a social impact assessment was not required to obtain State Government approval for the mine or the transportation of the mineral sands.

69. What tax does KMS pay on its profits?

KMS will pay tax as required under Australian Corporations and Australian Taxation Office requirements.

70. Who are the shareholders of KMS and how much is owned by Chinese shareholders?

Kimberley Mineral Sands Pty Ltd is a 50/50 joint venture company between Sheffield Resources Pty Ltd and YGH Australia Investments Pty Ltd (Yansteel).