

Environmental Protection Act 1986

Section 43A

**NOTICE OF DECISION TO CONSENT TO CHANGE TO PROPOSAL DURING
ASSESSMENT**

PERSON TO WHOM THIS NOTICE IS GIVEN

Mr Andrew Bohnen
Shark Bay Resources Pty Ltd (ACN: 079 088 636)
Level 16/2 The Esplanade
PERTH WA 6000

PROPOSAL TO WHICH THIS NOTICE RELATES:

Shark Bay Resources Maintenance Dredging
Assessment No. 2272

Pursuant to section 43A of the *Environmental Protection Act 1986* (EP Act), the Environmental Protection Authority (EPA) consents to the proponent making the following changes to the proposal during assessment without a revised proposal being referred:

- 1) reduction in the extent of the dredge footprint from 63.4 hectares (ha) to 35.3 ha
- 2) reduction in the dredge material volume from up to 100,000 cubic metres (m³) to up to 80,000 m³ of sediment
- 3) reduction in the volume of dredge material to be disposed of at the offshore disposal area from up to 100,000 m³ to up to 80,000 m³ of sediment
- 4) addition of seabed levelling in the berth pocket of up to 10,000 m³ of sediment
- 5) updates to the key characteristics table to reflect the proposed changes.

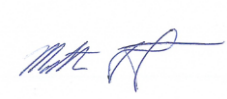
The updated proposal summary (Table 1), key characteristics tables (Table 2) and figure depicting the development envelope (Figure 1) are attached to this Notice.

EFFECT OF THIS NOTICE:

1. The EPA considers that the change is unlikely to significantly increase any impact that the proposal may have on the environment. The proponent may change the proposal as provided for in this notice.

RIGHTS OF APPEAL:

There are no rights of appeal under the EP Act in respect of this decision.



Professor Matthew Tonts
Delegate of the Environmental Protection Authority
CHAIR

1 June 2021

Schedule 1

Change to Proposal

Table 1: Summary of the Proposal

Proposal title	Shark Bay Resources Maintenance Dredging
Proponent name	Shark Bay Resources Pty Ltd
Short Description	The Proposal is for up to 80 000 m ³ of maintenance/capital dredging and seabed levelling of up to 10 000 m ³ in a Development Envelope of up to 106.6 ha. The Development Envelope is comprised of an entrance channel dredge footprint, offshore disposal area footprint for dredged channel material, and seabed levelling in the berth pocket footprint.

Table 2: Location and proposed extent of physical and operational elements

Element	Location	Proposed extent
Physical elements		
Not applicable		
Operational elements		
Maintenance and capital dredging – entrance channel	Figure 1	Up to 80 000 m ³ of material will be removed from the 35.3 ha channel entrance footprint to a maximum depth of -10.5 m lowest astronomical tide (LAT).
Maintenance dredging – berth pocket	Figure 1	Up to 10 000 m ³ of material will be moved/levelled within the 28.1 ha berth pocket footprint to a maximum depth of -10 m LAT.
Disposal area	Figure 1	Up to 80 000 m ³ of material disposed within the 43.2 ha offshore disposal area footprint.

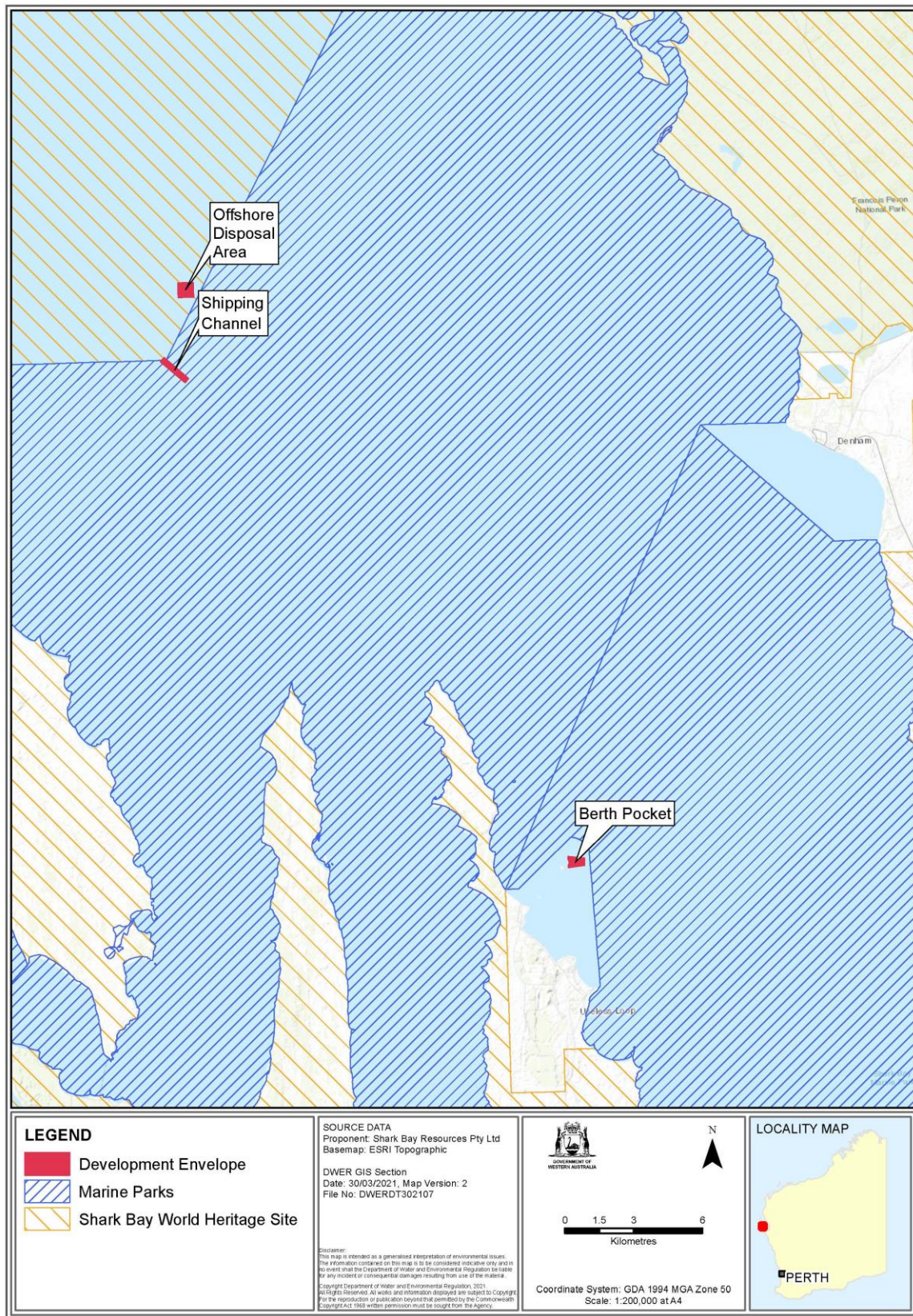


Figure 1: Development envelope

Environmental Protection Act 1986

Section 43A

STATEMENT OF REASONS

CONSENT TO CHANGE PROPOSAL DURING ASSESSMENT

Proposal: Shark Bay Resources Maintenance Dredging

Proponent: Shark Bay Resources Pty Ltd

Decision

For the reasons outlined below, the Environmental Protection Authority (EPA) has determined to consent to the proponent changing the proposal outlined in Schedule 1 attached to this Statement of Reasons.

I have also determined that no consultation or public review is necessary when considering the request to consent to the change. Targeted consultation has been undertaken with key stakeholders by the proponent, in accordance with the EPA's request for further information. No public submissions were received during the seven day public review period for setting the level of assessment.

Background

On 30 June 2020, Shark Bay Resources Pty Ltd (the proponent) referred the proposal to the EPA under section 38 of the *Environmental Protection Act 1986* (EP Act). The proposal included dredging of up to 100,000 m³ of dredge material from the existing port entrance channel and berth pocket, and disposal of the dredge material to an offshore disposal area.

On 18 December 2020, the EPA determined to assess the proposal at the level of assessment of referral information with additional information required. The additional information requested included further sediment analysis, further consideration regarding the selection of the spoil ground disposal location and targeted consultation with key stakeholders.

In advance of the EPA preparing a report on the outcome of its assessment of the proposal, the proponent has sought the EPA's consent to the proponent changing the proposal.

Relevant Statutory and Administrative Provisions

Section 3.8 of the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual 2016* guides what information the EPA requires from a person wanting to change its proposal during assessment.

The proponent is required to provide:

- details of the proposed change
- statement of the significance of the change and
- rationale for the change.

Materials considered in making this decision

In determining whether to consent to the proponent changing the proposal the EPA has considered the following:

1. the proponent's application to change the proposal under section 43A of the EP Act (19 February 2021)
2. the referral document *Shark Bay Resources: Dredging Environmental Impact Assessment (Revision 0, June 2020)* (the referral)
3. the revised Assessment on Referral Information document *Shark Bay Resources: Dredging Environmental Impact Assessment (Revision 3, May 2021)* (the revised DEIA)
4. the proponent's consultation with targeted stakeholders
5. EPA guidance and procedures.

Consideration

1. Nature of the proposed change

a) Change in method to achieve safe navigable depths in the berth pocket

The proponent no longer proposes to dredge in the berth pocket, rather sediment will be redistributed by a 'sweeping bar' attached to a vessel. This seabed levelling will redistribute sediment in the berth pocket to areas that have depths lower than that required for safe navigable passage of vessels. Due to the difference in methodology, the amount of sediment expected to be mobilised has decreased by 10,000 m³ (from 20,000 m³ to 10,000 m³) as an allowance for overdredge is no longer required.

The seabed levelling program is expected to take approximately four weeks, whereas the original dredging program was expected to take between 1 and 11 days, depending on the size of the dredge contracted. Therefore, the duration of the turbidity plumes has increased by between approximately 2- 4 weeks.

The change in methodology reduces the dredge footprint area, dredge material volume and duration of dredging campaign as outlined in b) below.

b) Decrease in the dredge footprint, dredge material volume and duration of dredging campaign

The removal of dredging from within the berth pocket results in a decrease in the total dredge volume of 20,000 m³ (from 100,000 m³ to 80,000 m³), with a subsequent reduction in the total volume of sediment to be disposed in the offshore disposal area. The dredge footprint decreases by 28.1 ha (from 71.3 ha to 43.2 ha). The dredge campaign duration decreases from up to four weeks to up to two weeks.

c) Amendments to the key characteristics of the proposal

The revised DEIA includes a revised key characteristics table that describes the changes to the:

- capital and maintenance dredging area
- volume of dredge material to be dredged and disposed of in the offshore disposal area
- volume of sediment to be mobilised in the seabed levelling area.

The updated key characteristics of the proposal are in the attached key characteristics table (Schedule 1) with the revised dredge footprint depicted in Figure 1.

2. Stage of the assessment process

The level of assessment, Referral Information with Additional Information, was set on 18 December 2020. During the period that additional information was being provided, the proponent sought to change the proposal. The s. 43A request was received on 19 February 2021. The revised DEIA was provided on 18 May 2021.

3. Currency, relevance and reliability of the information, including submissions

The proposal was referred to the EPA in June 2020 and further information submitted in support of the referral remains current, reliable and relevant. In addition, the proponent has undertaken additional work to inform the assessment and the revised DEIA has been submitted.

4. Community engagement

The proponent was required to conduct targeted consultation with affected stakeholders as part of the further information the EPA required for its assessment. The consultation report (Appendix K) outlines the consultation conducted and how the proponent has responded to the concerns raised by stakeholders.

5. Level of public concern

The EPA advertised the referral information for public comment from 15 July 2020 to 21 July 2020 (inclusive). No public submissions were received, and the EPA does not consider that the proposed changes would result in a considerable increase in the level of interest in the proposal.

Consideration of Whether the Change is Unlikely to Significantly Increase Any Impact that the Proposal May Have on the Environment

The following were considered:

- Values, sensitivity and the quality of the environment which is likely to be impacted

The proposal is located in three distinct areas:

- adjacent to the Shark Bay World Heritage Area (WH Area) and Shark Bay Marine Park (Marine Park) – berth pocket and seabed levelling activities
- within the WH Area and Marine Park – access channel and dredging activities
- within the WH Area and adjacent to the Marine Park – spoil disposal location.

The main benthic habitat within both the berth pocket and access channel is seagrass. Both areas are predominantly covered in sparse (< 35 % density) to moderate (35 – 70 % density) seagrass, with small areas of dense (75 – 100% density) seagrass in the berth pocket only. The spoil disposal location is bare sand, rock and rubble.

In general, water and sediment quality in the WH Area and Marine Park is considered high. Within the port area for Shark Bay Resources, environmental quality is lower with sediment sampling showing elevated levels of tributyltin (TBT), likely in the form of paint flakes, in a number of locations within the berth pocket.

The marine waters surrounding the project area support a variety of fauna, several of which are significant and protected under state and national legislation. Marine fauna which commonly occur within Shark Bay include dugong, humpback whales, loggerhead and green turtles, several species of dolphins and a number of conservation significant shark and ray species. Their distribution within the area changes seasonally depending on migration patterns, food availability and water temperature. Recreational and commercial fisheries are also present within the WH Area and Marine Park, with the key commercial fisheries including prawn, scallop, crab and scalefish.

The marine waters and adjacent terrestrial areas are also of national and international importance, with the area declared a World Heritage Area in 1991. The area generally is important for Aboriginal and European heritage.

The preliminary key environmental factors for the proposal are:

- Marine Environmental Quality
- Benthic Communities and Habitats
- Marine Fauna
- Social Surroundings.

The proposed changes being considered will not require additional factors to be considered as preliminary key environmental factors for the purposes of the EPA's assessment of the proposal. This is because the proposed changes result in an overall reduction in the potential environmental impacts.

- Extent (intensity, duration, magnitude and geographic footprint) of the likely impacts

The total area of the development envelope for the proposal remains unchanged, however the extent of material to be dredged decreases. The change in methodology reduces the total amount of sediment to be disturbed, the amount of sediment to be dredged and disposed, and the duration of the dredging and disposal activities. These decreases will reduce the intensity, duration and magnitude of the turbidity generated during dredging and disposal activities.

The proposed change does increase the duration in the turbid plume resulting from activities in the berth pocket. However, the change in methodology decreases the severity and magnitude of the turbidity produced. Dredging uses water jets to disturb sediment on the seabed and allows for overflow from the hopper, which results in sediment dispersion throughout the water column. During seabed levelling, sediment remains near the seafloor, and consequently the Zone of Influence (ZOI) for turbidity will be reduced and is likely to be constrained to the port operations area.

The Zones of High Impact for the proposal remain unchanged, and as a consequence of the change in methodology the Zone of Moderate Impact and ZOI in each area will be reduced.

- Consequence of the likely impacts (or change)

The consequences of implementing the changes to the proposal are not expected to significantly increase any impact that the proposal may have on the environment when compared to the original proposal.

TBT is highly toxic to marine life. When disturbed from marine sediments and exposed to water, it dissolves and increases its availability to marine life. Its presence in the berth pocket is likely a result from historical contamination and is common in port areas.

The requested change in method to 'sweep' the area using iron bars will reduce potential impacts when compared with the dredging and disposal process. The process of dredging causes sediments to be agitated and fully disturbed, which increase the amount of TBT that mobilises into the water column.

The alternative of seabed levelling, while still disturbing contaminated sediments, will not fully agitate sediments to the same degree as dredging. Consequentially the amount of TBT mobilised into the water column is likely to be less than dredging activities. The extent of the TBT contaminated turbidity plume will also be reduced from the change in methodology. It is acknowledged that the area in which the turbidity is predicted to occur is within a working port and was excluded from both the WH Area and Marine Park in recognition of port operations.

TBT contaminated sediments will also no longer be moved from outside the WH Area and Marine Park to within the WH Area, ensuring marine water and sediment quality will remain high following the dissipation of the turbidity from dredging and spoil disposal.

Removal of dredging from the berth pocket will decrease the magnitude of the turbidity plume and therefore reduce the potential impact that turbidity may have on benthic communities and habitats, and marine fauna. It will also reduce the duration of the dredge portion of the proposal and therefore the duration where dredging may impact either marine fauna or fishers.

- Resilience of the environment to cope with the impacts or change

The EPA considers that the resilience of the environment to cope with the potential impacts of the changed proposal remain unchanged from those of the original proposal, should it be implemented.

- Cumulative impacts with other projects

Cumulative impacts will be considered during the EPA's assessment of the changed proposal. When compared to the original proposal, the changes are unlikely to increase the cumulative impact of the proposal as the proposed changes will result in a reduction in the extent of turbidity, resulting in fewer impacts to associated environmental values.

- Connections and interactions between parts of the environment to inform holistic view of impacts of the whole environment

The impact to the environmental functions and values of the area due to the changed proposal being implemented compared to the original proposal being implemented are likely to be minor given the extent and magnitude of the changes after taking into account the revised impacts of the original proposal following additional investigations. A holistic assessment of the changed proposal will be undertaken during the EPA's assessment of the proposal.

- Level of confidence in the prediction of impacts and the success of proposed mitigation

There is no change in the level of confidence in the prediction of impacts and the success of the proposed mitigation since the referral. The proponent's prediction of turbidity plumes and sediment sampling/analysis for the referred proposal, are adequate to assess the proposed changes with a high level of confidence.

The likely adequacy and effectiveness of the proposed mitigation will be considered and assessed by the EPA in its Assessment Report.

- Public interest about the likely effect of the proposal, if implemented, on the environment, and public information that informs the EPA's assessment

While no submissions were received during the 7-day public comment period, the proposal decreases the extent and duration of potential environmental impacts. The EPA considers that the public interest in the proposal will likely remain unchanged to that of the original proposal regardless of the proposed changes.

Conclusion

In conclusion, the EPA considers that the change is unlikely to significantly increase any impact the proposal may have on the environment primarily because:

- The proposed change decreases the duration, severity and extent of the turbidity, and its consequential impacts to marine fauna, benthic communities and habitats and social surroundings, within the WH Area and/or Marine Park.
- While the duration of the turbidity plume within the berth pocket is increased, the extent and severity of the turbidity is reduced and occurs within an area excluded from the WH Area and Marine Park. It is also acknowledged the berth pocket is within a working port.

Schedule 1

Change to Proposal

Element	Location	Referred extent	Revised extent
<i>Physical elements</i>			
Not applicable			
<i>Operational elements</i>			
Maintenance and capital dredging – entrance channel	Figure 1	Up to 80 000 m ³ of material will be removed from the entrance channel to -10 m lowest astronomical tide (LAT), with sand trenches beyond the original design (-0.5 m) on both sides of the channel to limit slumping over time and reduce the requirement for maintenance into the future.	Up to 80 000 m ³ of material will be removed from the 35.3 ha channel entrance footprint to a maximum depth of -10.5 m lowest astronomical tide (LAT).
Maintenance dredging – berth pocket	Figure 1	Up to 20 000 m ³ of material will be removed from the berth pocket to -10 m LAT. "No overflow" of the hopper proposed in selected areas where sampling indicated elevated TBT. Priority to dredge "contaminated" area first and cap with uncontaminated material.	Up to 10 000 m ³ of material will be moved/levelled within the 28.1 ha berth pocket footprint to a maximum depth of -10 m LAT.
Disposal area	Figure 1	N/A	Up to 80 000 m ³ of material disposed within the 43.2 ha offshore disposal area.

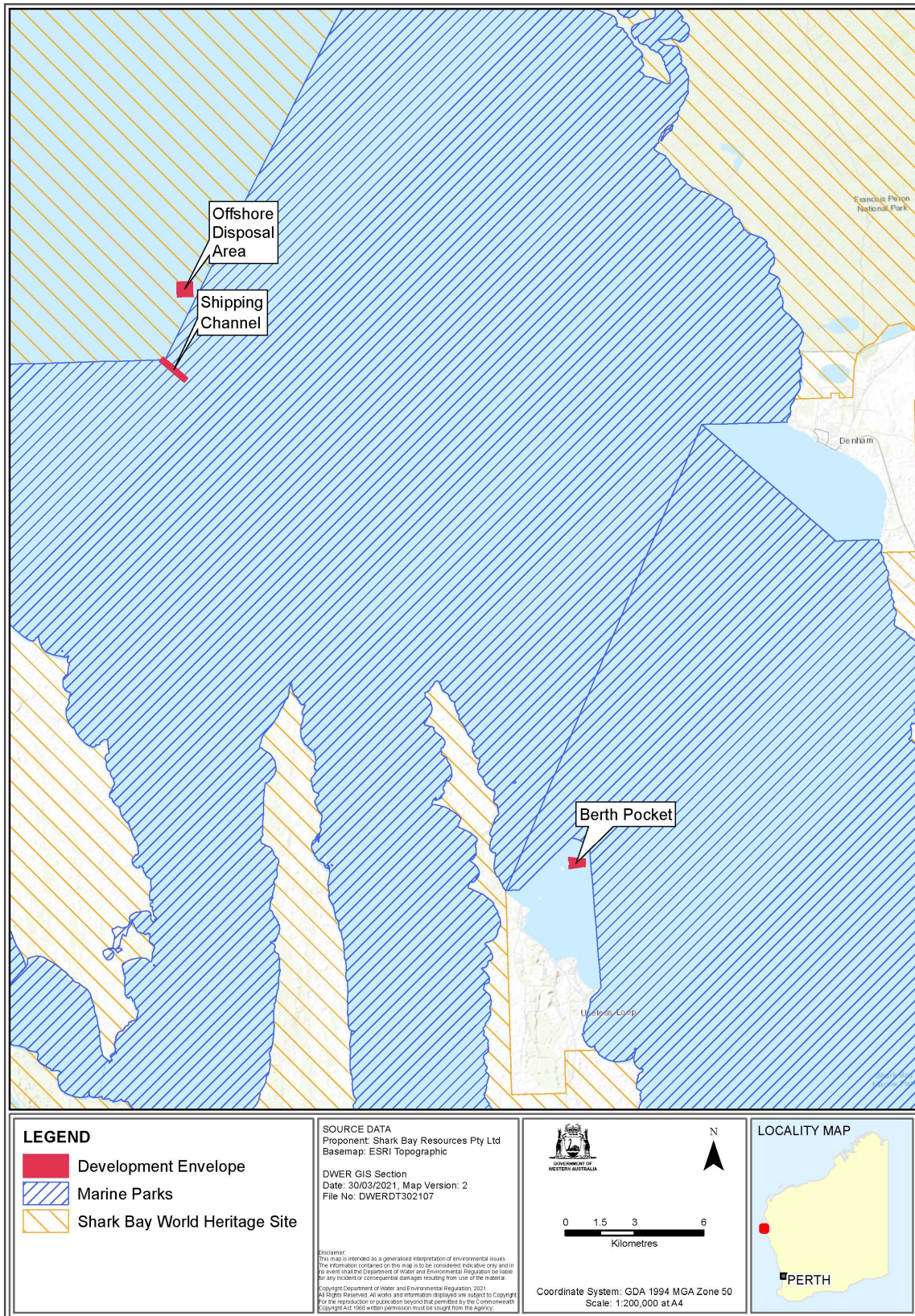


Figure 1: Development envelope