Published on: 30 September 2010 Statement No. 840

STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED (PURSUANT TO THE PROVISIONS OF THE *ENVIRONMENTAL PROTECTION ACT 1986*)

CAPE LAMBERT PORT B DEVELOPMENT - SHIRE OF ROEBOURNE

Proposal: The proposal is to construct and operate a second port (Port B) at Cape Lambert to process and export up to 130 million tonnes of ore per annum.

Proponent: Pilbara Iron Pty Ltd

Proponent Address: Level 22, Central Park, 152 – 158 St George's Terrace, PERTH WA 6000

Assessment Number: 1717

Appeal Determination: 59 to 61 of 2010

Report of the Environmental Protection Authority: Report 1357

The proposal referred to in the above report of the Environmental Protection Authority may be implemented. The implementation of that proposal is subject to the following conditions and procedures:

1 Proposal Implementation

1-1 The proponent shall implement the proposal as assessed by the Environmental Protection Authority and described in Schedule 1 of this statement subject to the conditions and procedures of this statement.

2 Proponent Nomination and Contact Details

2-1 The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.

2-2 The proponent shall notify the Chief Executive Officer of the Office of the Environmental Protection Authority (CEO) of any change of the name and address of the proponent for the serving of notices or other correspondence within 30 days of such change.

3 Time Limit of Authorisation

3-1 The authorisation to implement the proposal provided for in this statement shall lapse and be void within five years after the date of this statement if the proposal to which this statement relates is not substantially commenced.

3-2 The proponent shall provide the CEO with written evidence which demonstrates that the proposal has substantially commenced on or before the expiration of five years from the date of this statement.

4 Compliance Reporting

4-1 The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the CEO.

4-2 The proponent shall submit to the CEO, the compliance assessment plan required by condition 4-1 at least six calendar months prior to the first Compliance Assessment Report required by condition 4-6 or prior to implementation, whichever is sooner. The compliance assessment plan shall indicate:

1. the frequency of compliance reporting;
2. the approach and timing of compliance assessments;
3. the retention of compliance assessments;
4. reporting of potential non-compliance and corrective actions taken;
5. the table of contents of compliance reports; and
6. public availability of compliance reports.

4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.

4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the CEO.

4-5 The proponent shall advise the CEO of any potential non-compliance within two business days of that non-compliance being known.

4-6 The proponent shall submit its first Compliance Assessment Report within 15 months following the date of issue of this statement addressing the twelve-month period from the date of issue of this statement and then annually from the date of submission of the first Compliance Assessment Report. The compliance assessment report shall:

1. be endorsed by the proponent's Managing Director or a person approved in writing by the CEO, delegated to sign on the Managing Director's behalf;

2. include a statement as to whether the proponent has complied with the conditions;

3. identify all potential non-compliances and describe corrective and preventative actions taken;

4. be made publicly available in accordance with the approved compliance assessment plan; and

5. indicate any proposed changes to the compliance assessment plan required by condition 4-1.

5 Fauna – Short Range Endemics

5-1 The proponent shall not clear or disturb:

1. the ground or any vegetation beyond the proposal footprint depicted in Figure 1 and defined in Table 2 of this Statement; and

2. more than a total combined area of 19.2 hectares of vegetation from those portions of the development footprint that extends over *Lerista nevinae* habitat as outlined in Figure 1 and defined in Table 3 of this Statement.

5-2 The proponent shall not clear *Lerista nevinae* habitat; to access borrow, or for the purpose of laydown or storage, or for any purpose other than that essential for the construction of port infrastructure.

5-3 The proponent shall submit a ground disturbance report to the CEO to demonstrate ongoing compliance with conditions 5-1 and 5-2 above initially bi-monthly from the commencement of ground disturbing activities, during

construction, and then annually during the operation of Cape Lambert Port B. The report shall include:

1. a clear, top down (not oblique) aerial image captured at the end of each month from the commencement of ground disturbing activities and then annually during the operation of Cape Lambert Port B for those areas of *Lerista nevinae* habitat within the proposal footprint depicted in Figure 1 and defined in Table 3 of this Statement; and

2. a spatial analysis that provides the actual total combined area of *Lerista nevinae* habitat disturbance.

5-4 The proponent shall, in consultation with the Department of Environment and Conservation, for the whole duration of the Cape Lambert Port B development project, actively manage *Lerista nevinae* habitat as defined by primary and secondary dune vegetation and outlined in Figure 1, within the industrial lease area to ensure that its habitat value is maintained or enhanced. Active management shall include:

1. feral animal control;

2. the prohibition of stock;

3. weed control;

4. limited and controlled vehicle and pedestrian access through fencing and signage; and

5. the control of wild fires.

5-5 The proponent shall:

1. within six months of the first shipment of iron ore from Cape Lambert Port B, rehabilitate those areas of the footprint that were cleared during the construction phase but which are not required during the operational phase of the Cape Lambert Port B proposal; and

2. within five years of the cessation of port operations at Cape Lambert Port B, remove all marine and terrestrial infrastructure and rehabilitate all areas disturbed by the Cape Lambert Port B development.

5-6 All plant material used in rehabilitation is to be of local provenance, sourced from coastal plain and near coastal plain communities of the Roebourne Plain, south of Balla Balla and Whim Creek, and north of Cape Preston and the Fortescue River. The dominant species, general species composition, percentage cover and community structure in rehabilitated areas are to be comparable with suitable reference sites on nearby land which has not been disturbed by industrial

development. Reference sites are to be chosen in consultation with the Department of Environment and Conservation.

6 Turtle Management

6-1 At all stages of the Cape Lambert Port B development proposal including construction, operations and decommissioning, the proponent shall ensure that, other than the area labelled 'direct light' on Figure 3 and defined in Table 9 of this Statement, the whole of Bell's Beach from the line labelled 'beach boundary' on Figure 3 and defined in Table 9 up to, and including coastal vegetation within which turtle nesting occurs, is maintained in the shade at ground level and is not subject to direct light from Port infrastructure or activities during the turtle nesting and hatching seasons defined as 20 October to 10 March in any year.

6-2 The proponent shall implement the *Cape Lambert Port B Development Marine Turtle Management Plan* dated December 2008, and subsequent Cape Lambert Port B Turtle Management Plans prepared in consultation with the Department of Environment and Conservation and in accordance with the review procedures outlined in section seven of the *Cape Lambert Port B Development Marine Turtle Management Plan* dated December 2008.

6-3 The proponent shall make the Turtle Management Plan required by condition 6-2, and the results of monitoring programs outlined in the Turtle Management Plan, publicly available in a manner approved by the CEO.

6-4 The proponent shall establish, in consultation with the Chief Executive Officer of the Department of Environment and Conservation, protocols to detect, rescue and release adult and hatchling turtles that are or have been mis-orientated or disorientated by light spill.

6-5 The proponent shall report any mortality of marine turtles or other threatened or specially protected fauna to the Department of Environment and Conservation within 24 hours following detection.

7 Pile Driving

7-1 The proponent shall engage a dedicated Marine Fauna Observer or Observers who must:

1. demonstrate a knowledge and experience of marine wildlife species and their behaviours in the Pilbara region;

2. have the capacity, subject to safety considerations, to move independently between pile driving barges and within the exclusion zones surrounding piling operations;

3. be on duty during all daylight hours when pile-driving operations are conducted; and

4. maintain a log of:

   (a) observed cetaceans in a format consistent with the National Cetacean Sightings and Strandings Database;

   (b) other marine fauna observations, including fish kills and wildlife injuries within 500m of piling operations;

   (c) fauna behaviours, in particular any behaviours that could be attributed to piling activities;

   (d) management responses in relation to dead and injured wildlife, including the suspension of piling activities as required under condition 7-5; and

   (e) observation effort in relation to piling activities.

7-2 The proponent shall:

1. make available, on request from the Office of the Environmental Protection Authority, the log prepared by the Marine Fauna Observer or observers, required under condition 7-1; and

2. within six months of completing pile driving operations for Cape Lambert Port B, lodge cetacean records with the National Cetacean Sighting and Strandings Database at the Australian Antarctic Division.

7-3 No pile driving shall commence during daylight hours between sunrise and sunset, until the designated Marine Fauna Observer or observers required by condition 7-1 have verified that no whales or marine turtles have been observed within an area 500 metres from the planned piling operation during the 15 minute period immediately prior to commencement.

7-4 Prior to commencement of full power pile driving, the proponent shall implement soft start-up procedures that slowly increase the intensity of noise emissions over a period of no less than 15 minutes.

7-5 If the Marine Fauna Observer or observers required by condition 7-1, or any other person, should observe a whale or turtle enter within 100 metres of a single piling operation, or 150 metres of each concurrent piling operation, the piling operation within that distance from the whale or turtle is to be suspended.

7-6 Pile driving that has been suspended in accordance with condition 7-5 shall not recommence until all whales and turtles have moved beyond 500 metres from the suspended piling operation and beyond 150 metres of all concurrently operating pile-driving operations. Pile driving that has been suspended for more than 15 minutes shall recommence with soft start-up procedures as required by condition 7-4.

7-7 No pile-driving shall occur between the hours of sunset and sunrise during:

1. the turtle nesting season defined as 20 October to 10 March in any year; and

2. the peak southern migration of mother and calf humpback whale pods defined as 15 September to 10 October in any year.

7-8 The proponent shall, to the satisfaction of the CEO design and implement, in partnership with an expert or experts in the field of noise propagation modelling in the marine environment, an underwater noise monitoring program during the Cape Lambert Port B pile driving operation to:

1. measure underwater noise from pile driving operations to establish a library of sound signals:

   (a) at varying distances from the noise source;

   (b) when driving piles of different sizes and types;

   (c) during the concurrent piling of different numbers of piles; and

   (d) in conditions of different water depths.

2. review the predictive capacity of the noise propagation model used for Cape Lambert Port B and make recommendations for improving the accuracy of underwater noise modelling in the future.

7-9 The results of the noise monitoring and modelling review are to be published within three years after the completion of the Cape Lambert Port B pile driving operation in a manner approved by the CEO.

8 Marine Dredging

8-1 The proponent shall ensure that the implementation of the proposal does not cause a direct loss of Benthic Primary Producer Habitat in excess of 0.7 hectares. Benthic Primary Producer Habitat is shown on Figure 4a.

8-2 Prior to the commencement of dredging, the proponent shall establish a monitoring program to monitor water quality and coral health. The monitoring program shall include:

1. the collection and analysis of water quality and coral health monitoring data including turbidity (NTU), temperature (°C), light (μmol.m^2/day), gross sedimentation rates (mg.cm^2/day), particle size distribution and coral health;

2. monitoring for all the nominated parameters is to be undertaken at the 15 monitoring sites as listed in Table 6 and shown on Figures 4b and 4c in Schedule 1;

3. Data recording and downloading frequencies for all the nominated parameters at the 13 monitoring sites (including one 'impact', five 'indicator', five 'influence' and two 'reference' sites) listed in Table 6 of this Statement, as set out below, unless otherwise approved by the CEO:

   (a) coral health monitoring is to be undertaken at intervals of 14 days or less;

   (b) particle size distribution monitoring should, as a minimum, occur prior to, during and post dredging;

   (c) sedimentation deposition data is to be collected at intervals of 14 days or less using sediment traps;

   (d) all other parameters, including NTU and temperature, are to be recorded at intervals not exceeding 30 minutes and downloaded at intervals of 14 days or less.

4. the two 'contingency reference' sites listed in Table 6 of this Statement, shall be monitored as required in order to provide evidence of the spatial distribution of any observed trends in water quality or coral health at the 13 monitoring sites.

This program shall be designed to allow net coral mortality at any 'indicator' site listed in Table 6 of this Statement to be calculated with a statistical power of 0.8 or greater, or an alternative statistical power determined by the CEO.

8-3 Prior to the commencement of dredging the proponent shall implement the monitoring program required by condition 8-2 to the satisfaction of the CEO.

8-4 The proponent shall ensure that net detectable coral mortality at any 'indicator' site listed in Table 6 of this Statement, which is a result of proposal implementation, is less than 5 percent and the net detectable coral mortality at any 'influence' site listed in Table 6 is zero.

8-5 The proponent shall monitor water quality and coral health for the duration of the dredging and/or spoil disposal activities and for at least two months after cessation of all dredging and spoil disposal activities.

8-6 In the event that the coral health monitoring required by condition 8-3 is not undertaken during any 28 day period (i.e., two consecutive coral health monitoring surveys) at any 'indicator' or 'influence' site, the proponent shall immediately cease dredging and disposal activities which may affect water quality at that site until such a time as the net detectable coral mortality at that site can be assessed and demonstrated to be no greater than that stated in condition 8-4.

8-7 In the event that monitoring required by conditions 8-3 and 8-5 indicates that the coral criterion in condition 8-4 is not being met at any 'indicator' site as a result of proposal implementation and the circumstances which led to the exceedance still persist or are likely to re-occur, the proponent shall:

1. immediately cease dredging activities that could contribute to the decline in coral health at the affected 'indicator' site(s); and

2. report such findings including evidence which allows the determination of the cause of the decline in coral health.

The proponent shall report the above to the CEO within 4 days of the decline in coral health being identified.

8-8 The proponent shall not recommence dredging and/or spoil disposal activities following any cessation required under condition 8-7 until it can be demonstrated to the requirements of the CEO that the recommencement of such activities will not contribute to further net mortality of corals at sites where non compliant levels of net detectable coral mortality have occurred.

8-9 The proponent shall not conduct any dredging and/or spoil disposal activities or drilling and blasting activity during the period 3 days prior to the predicted commencement of mass coral spawning or as soon as mass coral spawning is detected if prior to that predicted time, and dredging and spoil disposal activities are to remain suspended for seven days from the commencement of mass coral spawning.

8-10 At 6 months and 18 months from completion of construction the proponent shall report to the CEO the permanent loss of Benthic Primary Producer Habitat and any loss of Benthic Primary Producer Communities within the six local assessment units shown on Figures 4b and 4c. The reports shall include co-ordinates and a map showing the areas of loss of Benthic Primary Producer Habitat and Benthic Primary Producer Communities caused by the proposal and

the results of water quality monitoring correlated with Coral health, to the requirements of the CEO.

For the purpose of conditions 8-1 to 8-10, the terms 'benthic primary producers', 'benthic primary producer communities', 'benthic primary producer habitats', 'permanent loss' and 'direct loss' are defined in EPA Environmental Assessment Guideline Number 3; *Protection Of Benthic Primary Producer Habitats In Western Australia's Marine Environment* (EAG3).

9 Non-Indigenous Marine Species

9-1 The proponent shall ensure that all non-trading vessels and associated immersible equipment, that are either owned by the proponent, or contracted for construction, maintenance, port operations or decommissioning of the Cape Lambert Port B proposal, (including dredges and pile driving barges) are appropriately cleaned, maintained and inspected by a Department of Fisheries Officer or a suitably qualified marine pest expert approved by the Department of Fisheries, and provide evidence to the satisfaction of the CEO on advice from the Department of Fisheries, certifying that:

1. there is no sediment on or within the non-trading vessel and equipment;

2. ballast water (if any) has been, or will be, managed according to the Australian Quarantine Inspection Service ballast water requirements;

3. no invasive marine species (as listed within the Revised Consultative Committee on Introduced Marine Pest Emergencies (CCIMPE) Trigger List - refer to condition 9-5) or any other species demonstrating invasive characteristics, have been identified on or within any vessel or immersible equipment inspected;

4. any cleaning or treatment activities undertaken to address invasive marine species risk, has been undertaken to an extent that the non-trading vessel or associated immersible equipment is considered to represent a low risk to the West Australian marine environment; and

5. vessel and immersible equipment inspections shall be conducted either;

    (a) immediately (no more than 48 hours) prior to vessel or immersible equipment departure for Cape Lambert Port B; or

    (b) within 48 hours following arrival of vessel or immersible equipment within Port Walcott; and

    (c) vessels that have spent more than seven days in coastal waters (less than 50 meters depth) between inspection and their arrival at Port Walcott shall also be inspected during the sixth week after arrival in Port Walcott.

Tug vessels and other support vessels that move between the proponents Dampier and Cape Lambert operations and between Johns Creek marina at Point Samson to these operations and remain in Western Australia's territorial waters, are excluded from the requirements of this condition and condition 9-2.

9-2 Specified vessels and immersible equipment and vessels used to undertake single or multiple bunkering or other routine operational activities at neighbouring ports (Dampier and Port Hedland), will be exempt from the invasive marine species risk mitigation measures referred to in condition 9-1 if, prior to arriving or departing from Port Walcott, the CEO, on advice from the Department of Fisheries, has issued a written exemption for that specified vessel and immersible equipment to enter Port Walcott prior to an identified date, based on comprehensive information submitted by the proponent that includes a risk assessment supported by documentation demonstrating biofouling management measures and a vessel activity profile since the most recent dry-dock cleaning.

9-3 If, non-trading vessels and associated immersible equipment are to be transferred without exemption (condition 9-2) from Cape Lambert to other locations within Western Australia's territorial waters, the proponent shall, at least 14 days prior to departure from Port Walcott, undertake an inspection or submit a demobilisation risk assessment to the Department of Fisheries that is informed by the invasive marine species monitoring of Cape Lambert Port B. Invasive marine species monitoring shall:

1. be consistent with monitoring design, implementation and reporting standards set out as part of the National Monitoring Network for the Prevention and Management of Marine Pest Incursions, as approved by the Monitoring Design Assessment Panel of the National Introduced Marine Pest Coordinating Group;

2. include a review of target priority species prior to each monitoring survey;

3. include a range of sample sites focusing on habitats considered most capable of facilitating the establishment of priority target species throughout all areas of port activities including anchorages, wharves, jetties, slipways, harbours and natural substrates;

4. be undertaken a minimum of every three years for the life of the project; and

5. include opportunistic sampling and analysis of specimens removed during port and vessel maintenance activities.

9-4 The proponent shall, throughout the life of the project notify the CEO and the Department of Fisheries of any known invasive marine species detected in the waters within the marine leases held by the proponent at or adjacent to Cape

Lambert within 48 hours following detection or following subsequent sample analysis undertaken as part of inspection or monitoring activities.

9-5 In the event that any invasive marine species are detected during either the inspection of non-trading vessels and immersible equipment, or during monitoring surveys, the proponent shall, in consultation with the CEO and the Department of Fisheries develop and implement an agreed Invasive Marine Species Management Strategy to prevent wherever practicable, the establishment and proliferation of that organism, aiming to control and potentially eradicating that organism, and to minimize the risk of that the organism being transferred to other locations within Western Australia.

For the purpose of conditions 9-1 to 9-5: the term 'non-trading vessel' refers to those vessels included in the definition of non-trading vessels outlined in the *National System for the Prevention and Management of Marine Pest Incursions, National Biofouling Management Guidance for Non-Trading Vessels*; and known invasive marine species are considered to be those species listed by the Consultative Committee on Introduced Marine Pest Emergencies (CCIMPE) within the Revised CCIMPE Trigger List.

10 Dust

10-1 Prior to commissioning, the proponent shall update the *Dust Management Plan – 2009 Cape Lambert Port Operations, December 2008* to include Cape Lambert Port B to the requirements of the CEO on advice from the Department of Environment and Conservation.

10-2 The Construction Environmental Management Plan and Dust Management Plan shall describe the process for defining and reviewing criteria for determining when port construction or operation is significantly contributing to ambient dust levels at Point Samson and Wickham, in consultation with the Department of Environment and Conservation.

10-3 The proponent shall implement the Dust Management Plan required by condition 10-1.

10-4 The proponent shall make the Dust Management Plan required by condition 10-1 publicly available in a manner approved by the CEO.

11 Marine Drilling and Blasting Activities

11-1 Prior to commencing marine drilling and blasting activities, the proponent shall prepare to the requirements of the CEO, a Drilling and Blasting Management Plan (D&BMP), in consultation with:

1. Department of Environment and Conservation;

2. Department of Transport (Maritime Division);

3. Department of Fisheries; and

4. Commonwealth Department of the Environment, Water, Heritage and the Arts.

11-2 The objectives of the D&BMP are to ensure that drilling and blasting activities are managed to minimise adverse impacts on marine vertebrate species. The D&BMP shall include:

1. an assessment of the amount of drilling and blasting required and over what area;

2. an assessment of likely blast pressures and potential environmental impacts of these pressures;

3. management actions and procedures to minimise environmental impacts, including the disposal of drilling muds and consideration of ecological windows between seasonally sensitive periods for marine wildlife;

4. a description of how dead and injured wildlife are to be managed;

5. stakeholder communication; and

6. reporting procedures and time frames.

11-3 In the event that marine drilling and blasting is required, the proponent shall implement the D&BMP required under conditions 11-1 and 11-2.

11-4 The proponent shall make the Plan required under conditions 11-1 and 11-2 publically available in a manner approved by the CEO.

11-5 No dredging, marine drilling or blasting activities are to be conducted outside the 320 hectare area illustrated in Figure 2 and bounded by the coordinates listed in Table 4 of this Statement.

11-6 The disposal of dredge material is not to take place in Western Australian State Waters outside the two square kilometre area bounded by the coordinates listed in Table 5 of this Statement.

Procedures

1. Where a condition states “on advice of the Environmental Protection Authority”, the Office of the Environmental Protection Authority will provide that advice to the proponent.

2. The Office of the Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the proponent.

3. The proponent is required to apply for a Works Approval and Licence for this project under the provision of Part V of the *Environmental Protection Act 1986*.

Hon Donna Faragher JP MLC
MINISTER FOR ENVIRONMENT; YOUTH

Schedule 1

The Proposal (Assessment No.1717)

General Description

The proposal is for the construction and operation of a second port (Port B) at Cape Lambert to process and export up to 130 million tonnes of ore per annum (Mtpa).

The upgrade works are described in the following documents:

- *Cape Lambert Port B development – Public Environmental Review and draft Public Environmental Report, March 2009.* Prepared for Rio Tinto Pty Ltd by Sinclair Knight Merz (17 March 2009); and
- *Cape Lambert Port B Development – Environmental Assessment of the Wharf relocation, November 2009.* Prepared for Rio Tinto Pty Ltd by Sinclair Knight Merz (27 November 2009).

Summary Description
A summary of the key proposal characteristics is presented in Table 1.

Table 1 Summary of Key Characteristics of the Cape Lambert Port B Proposal

Element	Description
Life of project	At least 50 years
Iron ore throughput capacity	Up to 130 Mtpa
Stockyard capacity	Storage to accommodate up to 130 Mtpa.
Total footprint of land-based activities	340 ha
Total area of vegetation clearing within the footprint	300 ha
Dredging: Volume of sea bed to be dredged for berth pockets, turning basins, departure channel, service wharf B and tug harbour extension: Area of seabed to be dredged: Dredging depths; • berth pockets; • approach/departure channel; and • turning basins. Duration of dredging program:	Up to 14 Mm^3 Up to 320 ha • 20 metres Chart Datum; • 16 metres Chart Datum; and • 10 metres Chart Datum. Approximately 52 weeks.

Table 1 Summary of Key Characteristics of the Cape Lambert Port B Proposal (cont'd)

Element	Description
Dredge disposal:	
Number of spoil grounds in State waters:	1
Dimensions of spoil ground:	2 km long by 1 km wide
Volume of dredge spoil to be disposed of in Western Australian State Waters:	6.06 Mm^3
Amount of dredge spoil to be disposed of onshore:	0 Mm^3
Duration of pile driving operation	Approximately 52 weeks
Access jetty and wharf:	
Design:	Open trellis design allowing water flow beneath.
Length:	Up to 2.2 km (from conveyor junction on land to end of wharf).
Number of ship loading berths:	Up to 4.
Major plant components:	
Car dumpers:	3
Screenhouses (lump rescreening plants):	2
Sample stations/systems:	2
Stackers:	3 or 4
Reclaimers:	3
Shiploaders:	2

Abbreviations

Mtpa million tonnes per annum
ha hectares
Mm^3 million cubic metres
km kilometre

Attachments

Figures (attached)

Figure 1 Terrestrial component of proposal footprint with *Lerista nevinae* habitat
Figure 2 Marine component of proposal footprint.
Figure 3 Bell's Beach light spill
Figure 4a Predicted dredging impacts and monitoring sites
Figure 4b Predicted dredging impacts and monitoring sites

Figure 4c Predicted dredging impacts and monitoring sites

Tables (attached)

Table 2 Coordinates of terrestrial footprint
Table 3 Coordinates of potential impact areas in *Lerista nevinae* habitat
Table 4 Coordinates of dredging footprint
Table 5 Coordinates of Western Australian State waters spoil disposal site.
Table 6 Coordinates of dredging impact monitoring sites
Table 7 Boundary coordinates of predicted worst case dredging impacts
Table 8 Seaward boundary coordinates of shaded area on Bell's Beach
Table 9 Coordinates of area of direct light at Bell's Beach

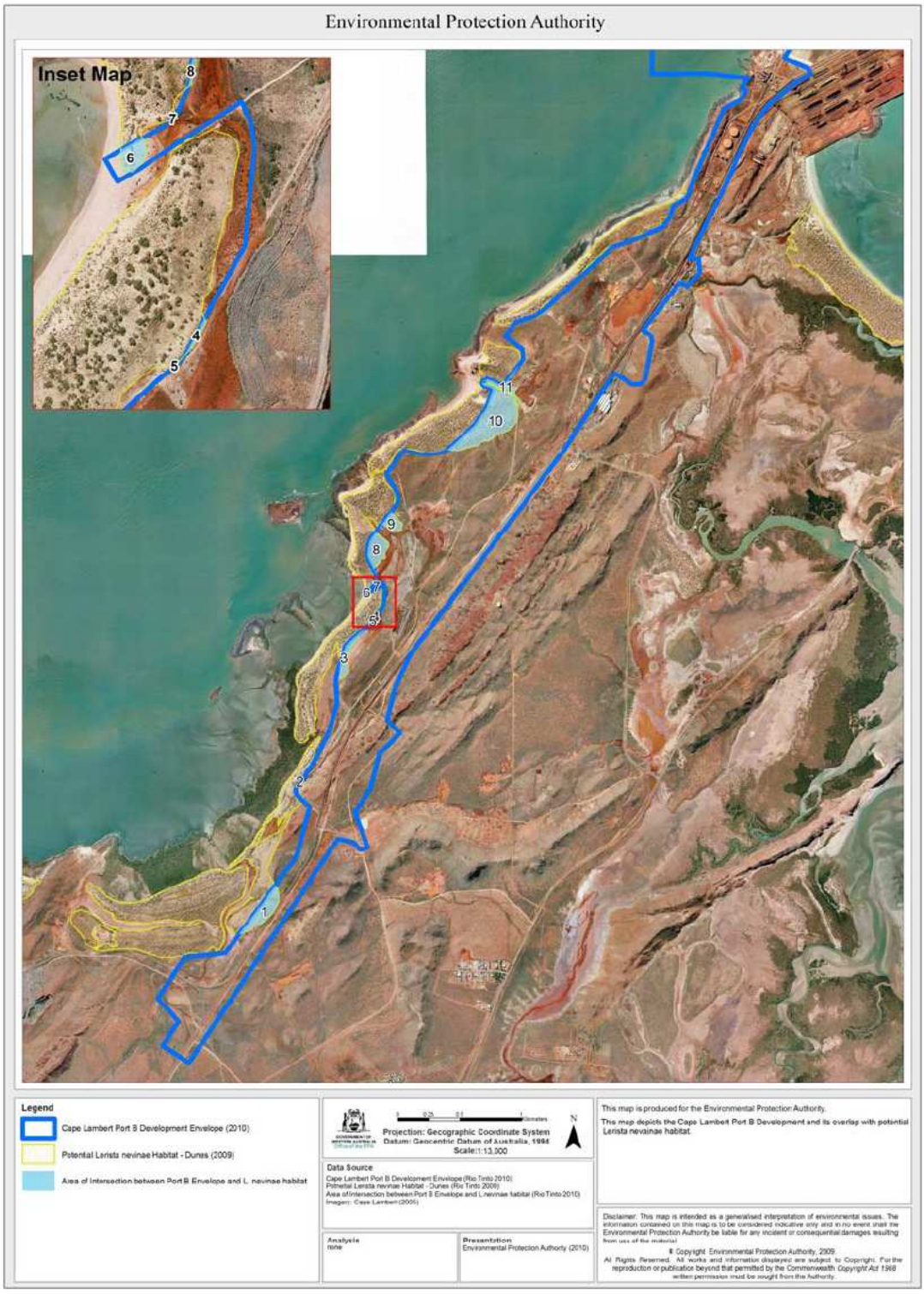

Figure 1: Terrestrial component of proposal footprint with *Lerista nevinae* habitat

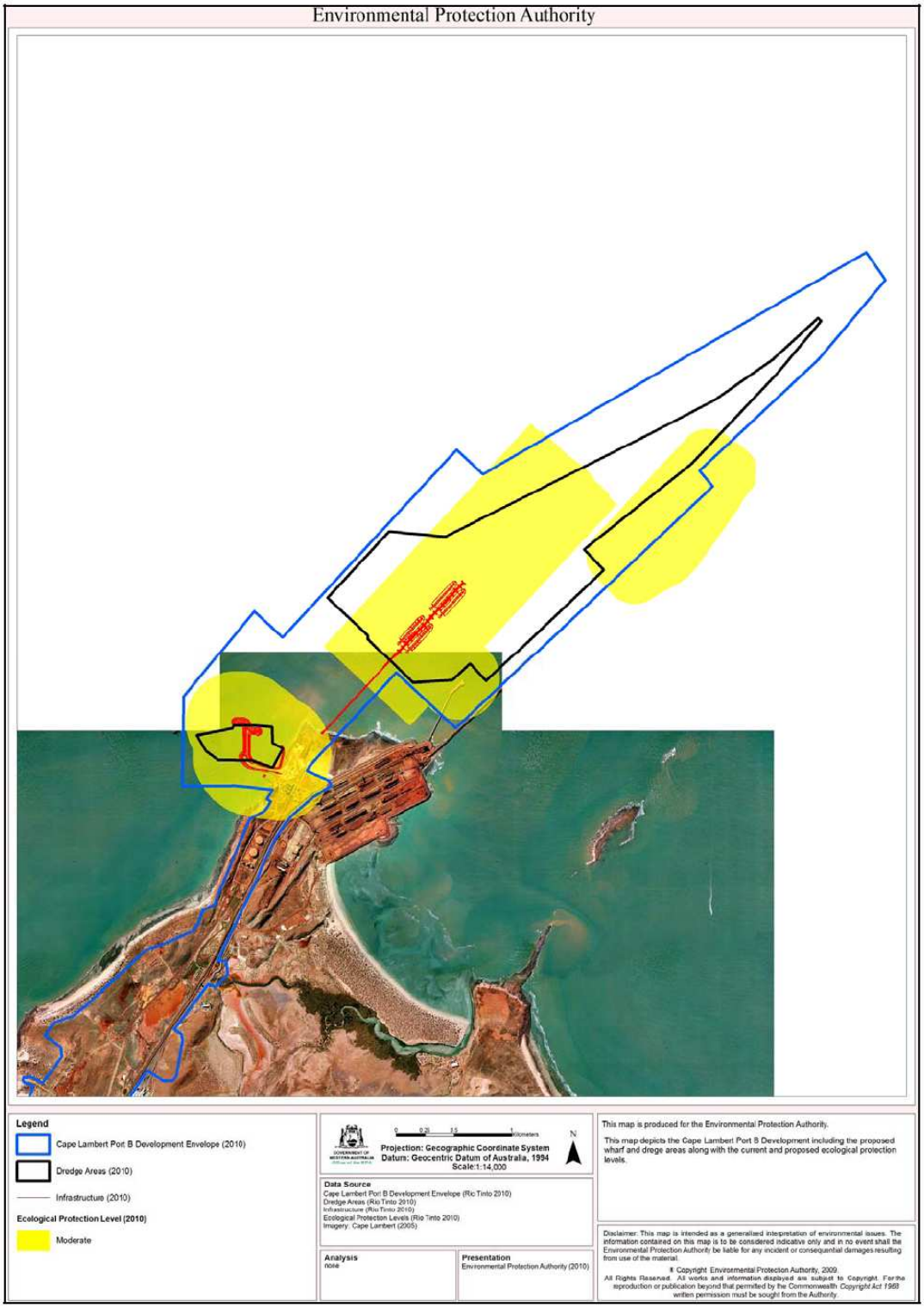

Figure 2: Marine Component of Proposal Footprint

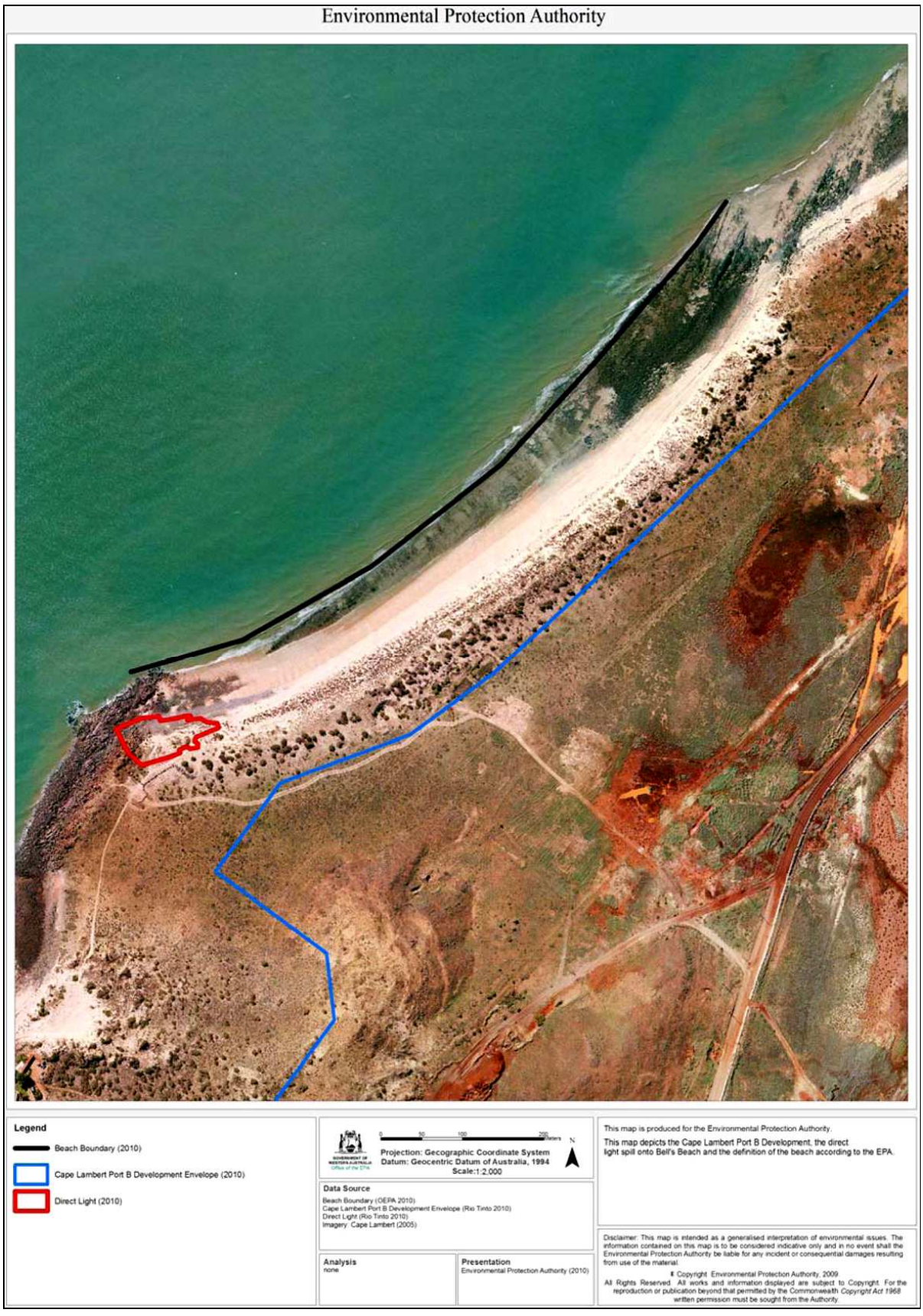

Figure 3: Bell's Beach Light Spill

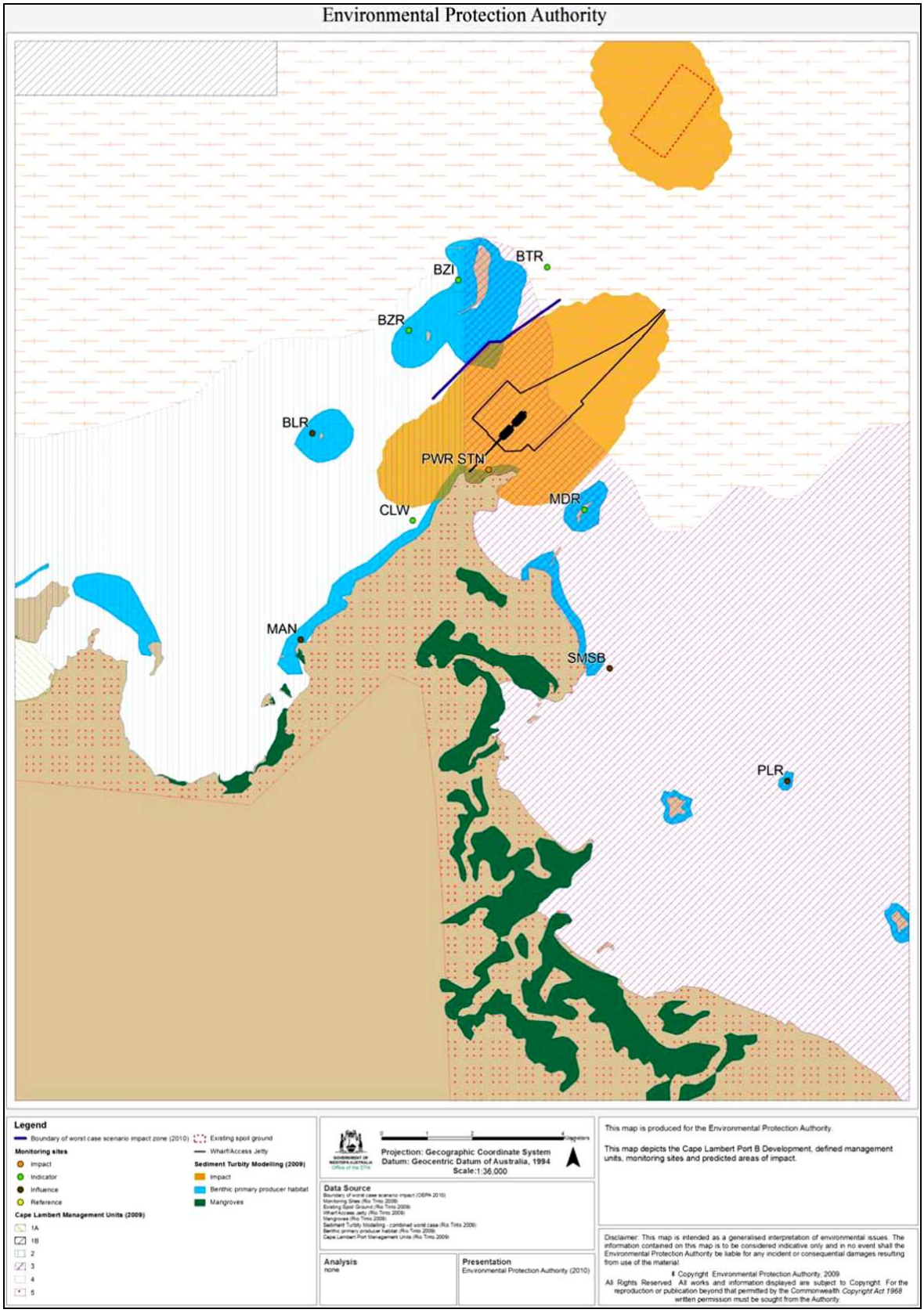

Figure 4a: Predicted Dredging Impacts and Monitoring Sites

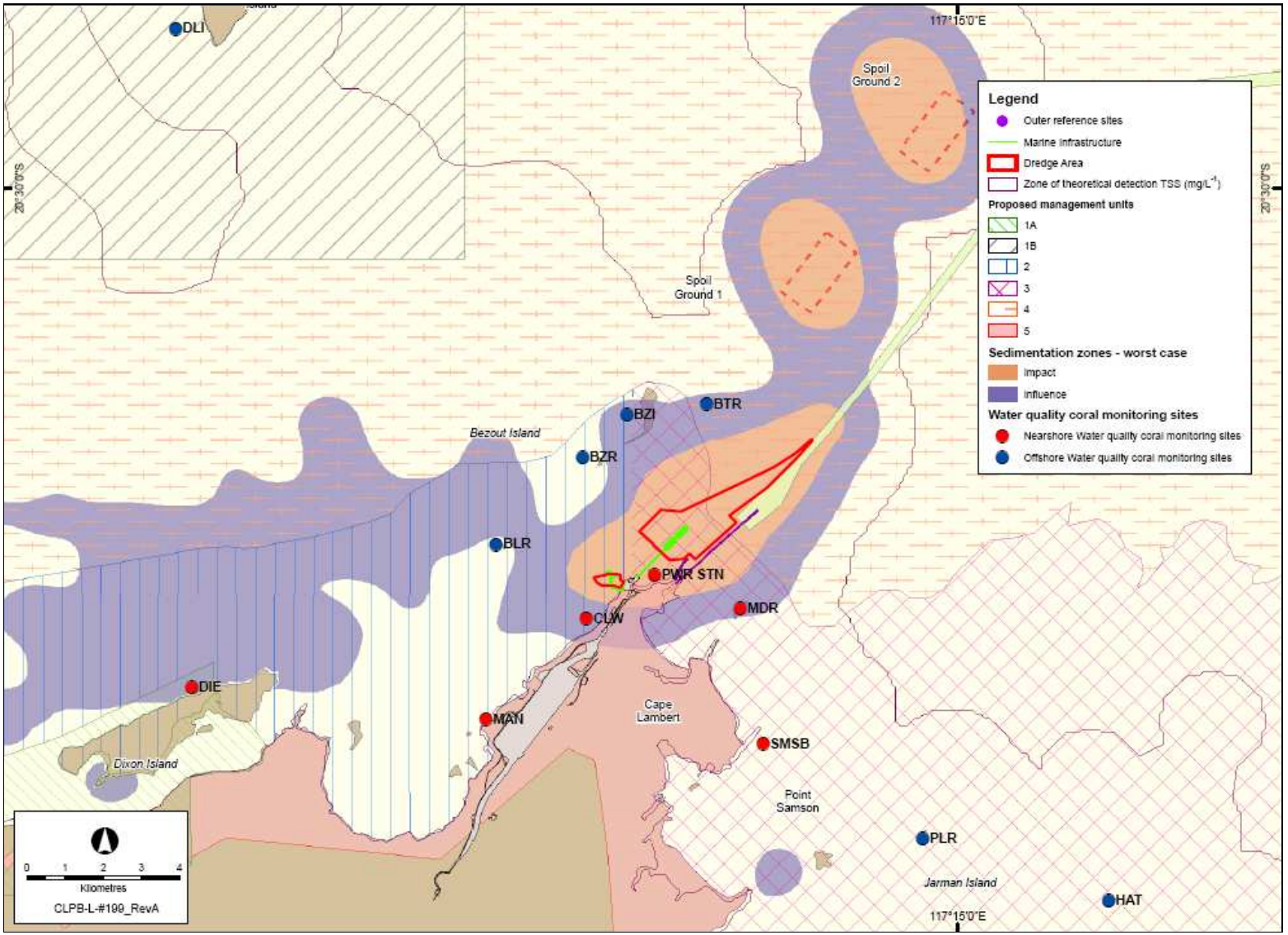

Figure 4b: Predicted Dredging Impacts and Monitoring Sites

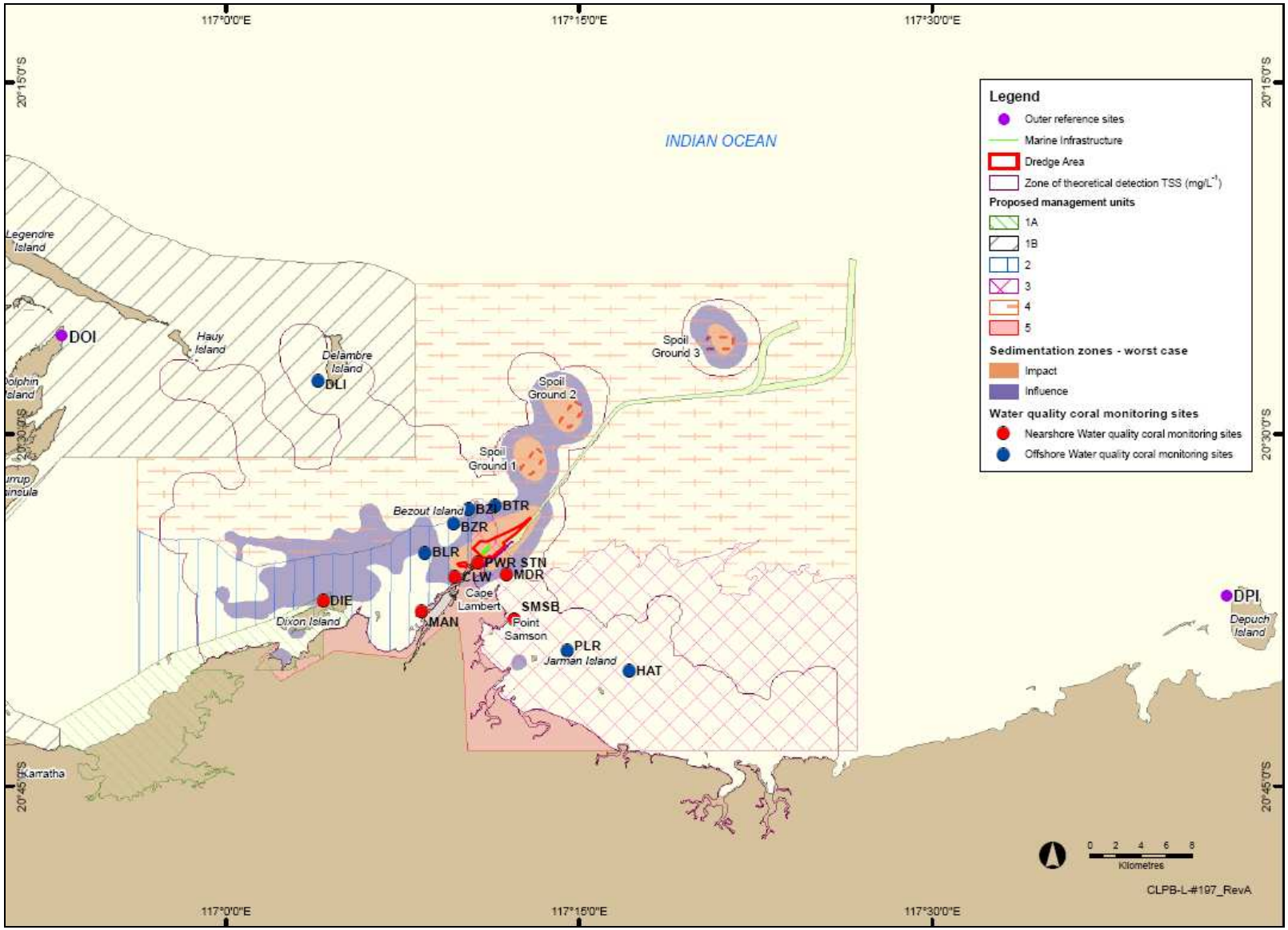

Figure 4c: Predicted Dredging Impacts and Monitoring Sites

Table 2 Coordinates of terrestrial footprint

Easting	Northing
518063	7722744
518056	7722736
518037	7722691
518223	7722610
518248	7722565
518195	7722537
518090	7722468
517904	7722309
517858	7722254
517771	7722125
517650	7721875
517610	7721767
517283	7721100
517261	7721054
517340	7721054
517350	7720945
517254	7720835
517181	7720855
516888	7720466
516952	7720428
516962	7720378
516906	7720059
516870	7720025
516797	7720025
516657	7720117
516304	7719578
516231	7719462
514996	7717800
514884	7717554
514817	7717274
514920	7717170
514752	7717002
514681	7716707
514557	7716519
514659	7716232
514601	7716212
514549	7716270
514536	7716279
514416	7716305

Easting	Northing
513211	7714469
512996	7714608
513125	7714807
512962	7714997
513175	7715333
513505	7715369
514082	7716157
514188	7716567
514140	7716607
514122	7716622
514107	7716637
514078	7716671
514074	7716691
514076	7716711
514087	7716741
514156	7716818
514172	7716853
514191	7716887
514219	7716927
514352	7717197
514409	7717414
514407	7717457
514406	7717497
514399	7717562
514400	7717601
514406	7717641
514425	7717705
514457	7717807
514480	7717887
514715	7718096
514786	7718227
514794	7718308
514797	7718339
514793	7718371
514782	7718393
514731	7718360
514666	7718316
514641	7718301
514626	7718326

Easting	Northing
514655	7718343
514694	7718365
514711	7718384
514722	7718410
514729	7718466
514705	7718511
514671	7718580
514655	7718619
514662	7718690
514671	7718729
514689	7718767
514909	7719067
514891	7719156
514807	7719287
514951	7719484
515153	7719446
515279	7719469
515523	7719690
515619	7719834
515672	7719983
515646	7719997
515602	7720010
515582	7720030
515590	7720056
515613	7720052
515622	7720065
515668	7720054
515753	7720008
515919	7720234
515909	7720317
515773	7720417
515853	7720526
516013	7720585
516114	7720660
516647	7721154
516785	7721195
517044	7721309
517101	7721385
517134	7721488

Easting	Northing
517237	7721544
517334	7721785
517438	7722032
517543	7722282
517666	7722348
517676	7722359
517693	7722377
517724	7722431
517691	7722451
517741	7722532
517711	7722535
517714	7722541
517773	7722614
517767	7722632
517757	7722658
517758	7722684
517766	7722690
517774	7722686
517784	7722668
517790	7722660
517808	7722657
517810	7722666
517829	7722692
517828	7722709
517818	7722709
517791	7722710
517790	7722719
517799	7722758
517795	7722776
517797	7722786
517827	7722805
517844	7722836
517868	7722866
517946	7722965
517967	7722998
517984	7723003
517993	7723002
518008	7722985
518010	7722976
517999	7722947

Easting	Northing
518003	7722939
518012	7722946
518025	7722965
518033	7722969
518067	7722970
518075	7722966
518082	7722958
518087	7722924
518085	7722905
518059	7722863
518043	7722835
518018	7722805
518015	7722785
518028	7722768
518046	7722759
518063	7722744

Table 3 Coordinates of potential impact areas in *Lerista nevinae* habitat

Polygon intersection number- corresponds with map	Easting	Northing
1	513614	7715517
1	513635	7715521
1	513666	7715537
1	513701	7715552
1	513727	7715571
1	513754	7715596
1	513815	7715625
1	513856	7715664
1	513891	7715699
1	513910	7715922
1	513913	7715736
1	513923	7715906
1	513935	7715880
1	513935	7715854
1	513940	7715804
1	513940	7715804
2	514087	7716741
2	514129	7716788
2	514156	7716818
2	514156	7716818
3	514426	7717660
3	514430	7717625
3	514431	7717703
3	514434	7717732
3	514442	7717622
3	514457	7717807
3	514469	7717634
3	514480	7717887
3	514489	7717659
3	514493	7717734
3	514495	7717791
3	514502	7717689
3	514523	7717862
3	514558	7717919
3	514599	7717973
3	514615	7717986
3	514625	7717999
3	514630	7718020
3	514630	7718020
4	514718	7718102
4	514727	7718112
4	514740	7718142
4	514742	7718137
4	514742	7718137
5	514707	7718089

Polygon intersection number- corresponds with map	Easting	Northing
5	514707	7718089
5	514708	7718090
5	514708	7718090
6	514645	7718337
6	514645	7718324
6	514647	7718312
6	514655	7718343
6	514658	7718312
6	514669	7718322
6	514669	7718351
6	514671	7718348
6	514675	7718334
6	514675	7718334
7	514700	7718372
7	514707	7718379
7	514709	7718374
7	514709	7718374
8	514655	7718619
8	514662	7718690
8	514671	7718580
8	514671	7718729
8	514689	7718767
8	514705	7718511
8	514710	7718502
8	514710	7718506
8	514710	7718508
8	514722	7718411
8	514722	7718529
8	514725	7718413
8	514728	7718817
8	514728	7718821
8	514728	7718498
8	514729	7718466
8	514730	7718434
8	514730	7718811
8	514730	7718462
8	514734	7718490
8	514746	7718555
8	514747	7718792
8	514766	7718594
8	514774	7718598
8	514784	7718764
8	514788	7718594
8	514797	7718598
8	514797	7718622
8	514797	7718634

Polygon intersection number- corresponds with map	Easting	Northing
8	514799	7718605
8	514805	7718747
8	514807	7718668
8	514826	7718698
8	514828	7718728
8	514829	7718715
8	514829	7718715
9	514750	7718851
9	514770	7718846
9	514774	7718851
9	514775	7718866
9	514781	7718872
9	514792	7718872
9	514808	7718868
9	514826	7718844
9	514857	7718991
9	514858	7718998
9	514859	7718970
9	514864	7718823
9	514884	7718943
9	514891	7718823
9	514902	7718924
9	514914	7718904
9	514930	7718840
9	514933	7718897
9	514936	7718875
9	514937	7718890
9	514937	7718890
10	515298	7719486
10	515312	7719490
10	515404	7719490
10	515466	7719510
10	515523	7719690
10	515549	7719528
10	515555	7719531
10	515578	7719553
10	515582	7720030
10	515585	7720038
10	515591	7720035
10	515592	7719560
10	515602	7720010
10	515613	7719567
10	515619	7719834
10	515625	7719563
10	515629	7720028
10	515646	7719997

Polygon intersection number- corresponds with map	Easting	Northing
10	515657	7719575
10	515671	7719591
10	515673	7719983
10	515674	7720012
10	515688	7719608
10	515714	7719616
10	515716	7719988
10	515752	7719968
10	515764	7719635
10	515784	7719952
10	515803	7719652
10	515813	7719934
10	515829	7719918
10	515841	7719690
10	515846	7719888
10	515860	7719851
10	515865	7719721
10	515867	7719731
10	515869	7719826
10	515872	7719797
10	515872	7719797
11	515589	7720051
11	515590	7720056
11	515599	7720046
11	515613	7720052
11	515622	7720065
11	515623	7720041
11	515650	7720035
11	515668	7720054
11	515675	7720025
11	515723	7719996
11	515753	7720008
11	515774	7719970
11	515797	7720047
11	515798	7720059
11	515799	7720023
11	515801	7720005
11	515803	7720067
11	515807	7720000
11	515815	7719945
11	515816	7720074
11	515831	7719933
11	515837	7719996
11	515840	7720099
11	515846	7719950
11	515848	7719914

Polygon intersection number- corresponds with map	Easting	Northing
11	515850	7720123
11	515851	7719935
11	515853	7719970
11	515856	7719996
11	515857	7720137
11	515866	7719982
11	515866	7719992
11	515867	7719863
11	515869	7719916
11	515870	7720155
11	515874	7719856
11	515879	7720176
11	515879	7720177
11	515884	7720186
11	515892	7719857
11	515898	7719888
11	515901	7719878
11	515901	7719878

Table 4 Coordinates of Dredging Footprint

Large dredge area

Easting	Northing
520600	7724434
519582	7723470
519445	7723619
519294	7723477
518953	7723457
518563	7723837
518561	7723871
518214	7724194
518747	7724765
519231	7724720
520994	7725604
521556	7725896
522061	7726246
522452	7726605
522479	7726580
522092	7726119
521360	7725348
520431	7724612
520600	7724434

Small Dredge Area

Easting	Northing
517085	7723000
517391	7723061
517403	7723083
517601	7723084
517736	7723072
517741	7722935
517827	7722886
517741	7722725
517564	7722786
517269	7722789
517163	7722868
517085	7723000

Table 5 Coordinates of Western Australian State Waters Spoil Disposal Site

Coordinates	
Easting	**Northing**
522842	7732018
523570	7731490
522453	7729953
521725	7730481

Table 6 Coordinates of Dredging Impact Monitoring Sites

Site No.	Site Code	Site name	Site Category	Site Location	
				Latitude	**Longitude**
1	PWR STN	Power Station	Impact	20° 35.440’S	117° 10.685’E
2	BTR	Boat Rock	Indicator	20° 33.750’S	117° 10.621’E
3	BZI	Bezout Island	Indicator	20° 33.213’S	117° 10.311’E
4	BZR	Bezout Rock	Indicator	20° 33.823’S	117° 09.682’E
5	CLW	Cape Lambert West	Indicator	20° 36.090’S	117° 09.756’E
6	MDR	Middle Reef	Indicator	20° 35.817’S	117° 11.862’E
7	BLR	Bells Reef	Influence	20° 35.052’S	117° 08.456’E
8	DIE	Dixon Island East	Influence	20° 37.084’S	117° 04.143’E
9	MAN	Mangrove point	Influence	20° 37.555’S	117° 07.988’E
10	PLR	Pelican Rock	Influence	20° 39.249’S	117° 14.415’E
11	SMSB	Samson Beach	Influence	20° 37.337’S	117° 11.890’E
12	DLI	Delambre Island	Reference	20° 27.736’S	117° 03.916’E
13	HAT	Hat Rock	Reference	20° 40.105’S	117° 17.136’E
14	DPI	Depuch Island	Contingency reference	20° 36’52.40”S	117° 42’29.09”E
15	DOI	Dolphin Island	Contingency reference	20° 25’811”S	116° 53.011”E

Table 7 Boundary Coordinates of Predicted Worst Case Dredging Impacts

Easting	Northing
517352	7724632
518593	7725884
518858	7725901
520146	7726812

Table 8 Seaward Boundary Coordinates of Shaded Area on Bell's Beach

Easting	Northing
515669	7720662
515806	7720702
515965	7720793
516124	7720918
516241	7721045
516363	7721187
516400	7721241

Table 9 Coordinates of Area of Direct Light at Bell's Beach

Easting	Northing
515651	7720592
515683	7720605
515703	7720607
515705	7720602
515721	7720604
515736	7720608
515742	7720608
515742	7720606
515738	7720603
515747	7720604
515755	7720605
515762	7720600
515775	7720599
515777	7720593
515749	7720582
515747	7720577
515751	7720574
515751	7720570
515742	7720568
515737	7720571
515728	7720567
515729	7720563
515717	7720558
515682	7720547
515666	7720562
515651	7720592

Attachment 1 to Ministerial Statement 840

Change to Proposal

Proposal: Cape Lambert Port B Development, Shire of Roebourne

Proponent: Pilbara Iron Pty Ltd

Change: Change to the Tug Harbour Extension dredging footprint area (i.e. updated Table 4 and Figures 2, 4b and 4c).

Table 10 – Coordinates of Dredging Footprint – Small Dredge Area (datum and projection: GDA 1994 MGA zone 50)

Easting	Northing
517519	7723412
517474	7723426
517522	7723209
517528	7723077
517531	7722998
517585	7722954
517723	7722950
517734	7722932
517735	7722902
517734	7722819
517625	7722706
517476	7722707
517452	7722758
517519	7723179
517699	7722959
517732	7722865
517732	7722805
517713	7722783
517631	7722717
517593	7722688
517560	7722678
517516	7722681
517454	7722874
517470	7723139

Figure 5 – Marine Component of Proposal Footprint

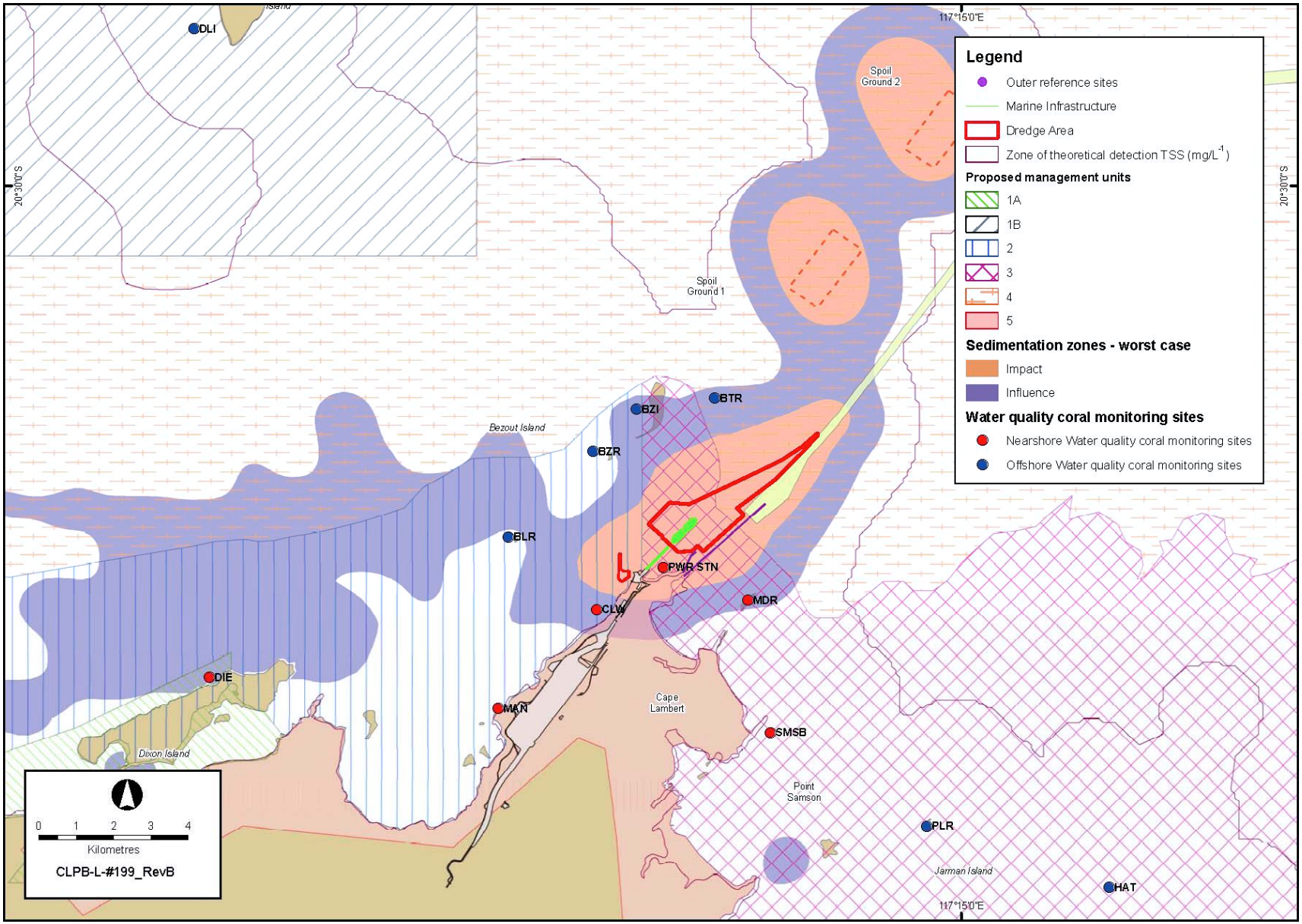

Figure 6a – Predicted Dredging Impacts and Monitoring Sites

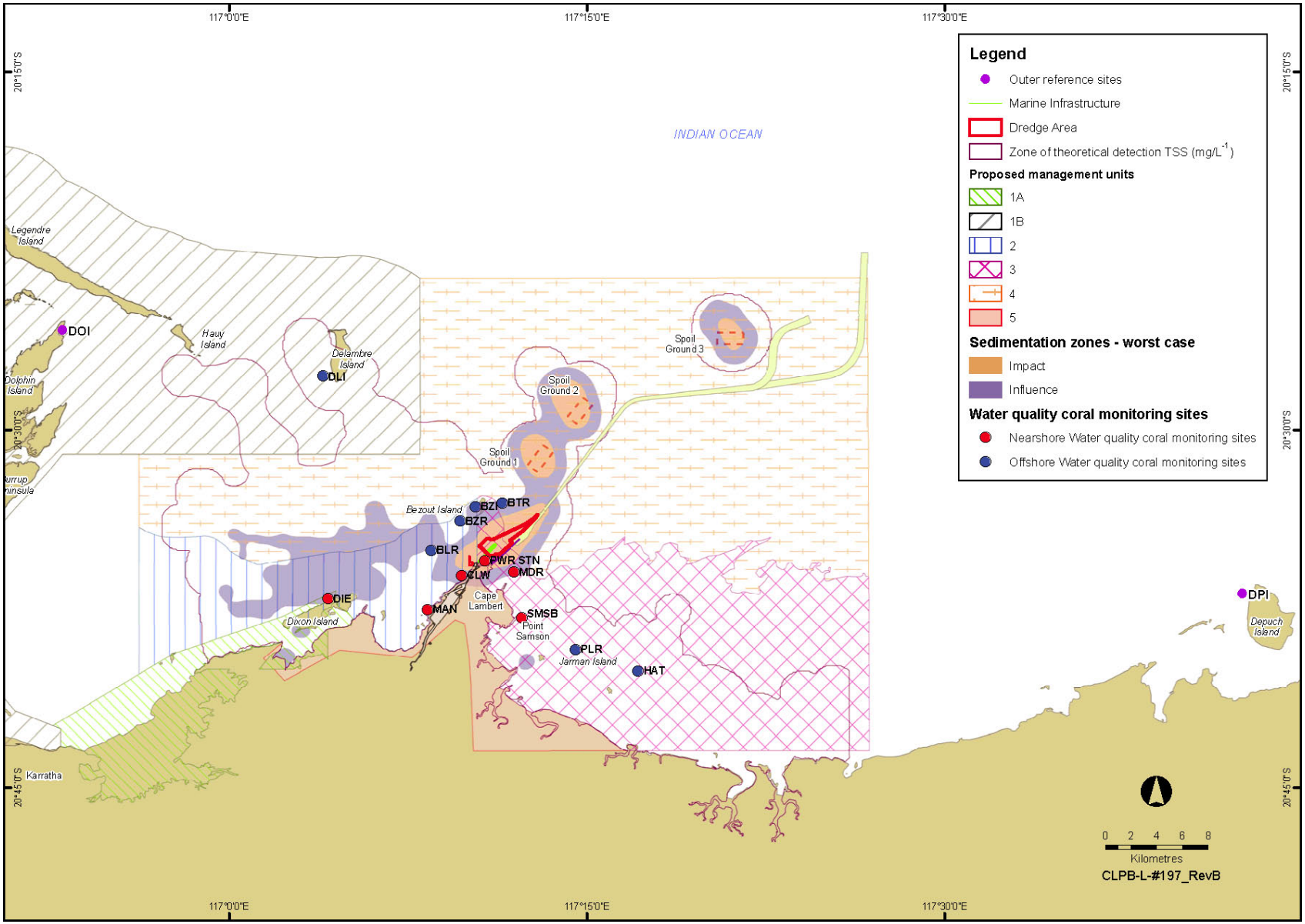

Figure 6b – Predicted Dredging Impacts and Monitoring Sites

Note: No changes to the Key Proposal Characteristic table of the Cape Lambert Port B Development are required.

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 12 May 2011

Attachment 2 to Ministerial Statement 840

Interim Implementation Conditions under section 46A of the *Environmental Protection Act 1986*

MINISTER FOR ENVIRONMENT; WATER

NOTICE OF INTERIM IMPLEMENTATION CONDITIONS

Section 46A
Environmental Protection Act 1986

Proponent: Pilbara Iron Pty Ltd

Proposal: The proposal is to construct and operate a second port (Port B) at Cape Lambert to process and export up to 130 million tonnes of ore per annum.

Proponent Address: 152 – 158 St George's Terrace, PERTH WA 6100

Statements to which this Notice relates: Statement 840 dated 30 September 2010

1. Pursuant to section 46A(1) of the *Environmental Protection Act 1986* the Interim Implementation Condition 8-1 set out in Schedule A attached to this Notice is to have effect instead of the implementation condition 8-1 set out in Statement 840 dated 30 September 2010.

2. The Interim Implementation Condition 8-1 in Schedule A will have effect until a further statement is published under section 45(5) as applied by section 46(8) of the *Environmental Protection Act 1986*.

Bill Ma

Hon Bill Marmion MLA
MINISTER FOR ENVIRONMENT; WATER

Attachment: Schedule A - Interim Implementation Condition 8-1

19 MAY 2011

Level 29, 77 St Georges Terrace, Perth, Western Australia 6000
Telephone: +61 8 9220 5000 Facsimile:+61 8 9220 5001 Email: Minister.Marmion@dpc.wa.gov.au
www.ministers.wa.gov.au/marmion

Schedule A

Interim Implementation Condition

8-1 The proponent shall ensure that the implementation of the proposal does not cause a direct loss of Benthic Primary Producer Habitat in excess of 1.4 hectares. Benthic Primary Producer Habitat is shown on Figure 4a.

Attachment 3 to Ministerial Statement 840

Change to Proposal

Proposal: Cape Lambert Port B Development, Shire of Roebourne

Proponent: Pilbara Iron Pty Ltd

Change: Additional dredging – increase in "large dredge area" and "tug harbour dredge area" (replaced Figure 5, Table 4 and Key Characteristics Table).

Key Characteristics Table:

Element	**Description of proposal**	**Description of approved change to proposal**
Life of Project	At least 50 years	At least 50 years
Iron ore throughput capacity	up to 130 Mtpa	up to 130 Mtpa
Stockyard capacity	Storage to accommodate up to 130 Mtpa	Storage to accommodate up to 130 Mtpa
Total footprint of land-based activities	340 ha	340 ha
Total area of vegetation clearing within the footprint	300 ha	300 ha
Dredging: Volume of sea bed to be dredged for berth pockets, turning basins, departure channel, service wharf B and tug harbour extension:	Up to 14 Mm^3	**Up to 14.545 Mm^3**
Area of sea bed to be dredged:	Up to 320 hectares	**Up to 346 hectares**
Dredging depths; • berth pockets; • approach/departure channel; and • turning basins.	• 20 metres Chart Datum; • 16 metres Chart Datum; and • 10 metres Chart Datum.	• 20 metres Chart Datum; • 16 metres Chart Datum; and • 10 metres Chart Datum
Duration of dredging program:	Approximately 52 weeks	**Approximately 64 weeks**

Dredge disposal:		
number of spoil grounds in State waters:	1	1
Dimensions of spoil ground:	2 km long by 1 km wide	2 km long by 1 km wide
Volume of dredge spoil to be disposed of in Western Australian State Waters:	6.06 Mm^3	**6.605 Mm^3**
Amount of dredge spoil to be disposed of onshore	0 Mm^3	0 Mm^3
Duration of pile driving operation	Approximately 52 weeks	Approximately 52 weeks
Access jetty and wharf:	Open trellis design allowing water flow beneath	Open trellis design allowing water flow beneath
Design:		
Length:	Up to 2.2 km (from conveyor junction on land to end of wharf).	Up to 2.2 km (from conveyor junction on land to end of wharf).
Number of ship loading berths:	Up to 4	Up to 4
Major plant components:		
Car dumpers:	3	3
Screenhouses (lump rescreening plants):	2	2
Sample stations/systems:	2	2
Stackers:	3 or 4	3 or 4
Reclaimers:	3	3
Shiploaders:	2	2

Abbreviations

Mtpa	million tonnes per annum
ha	hectares
Mm^3	million cubic metres
km	kilometre

Note: Text in **bold** in the Key Characteristics Table, indicates change/s to the proposal.

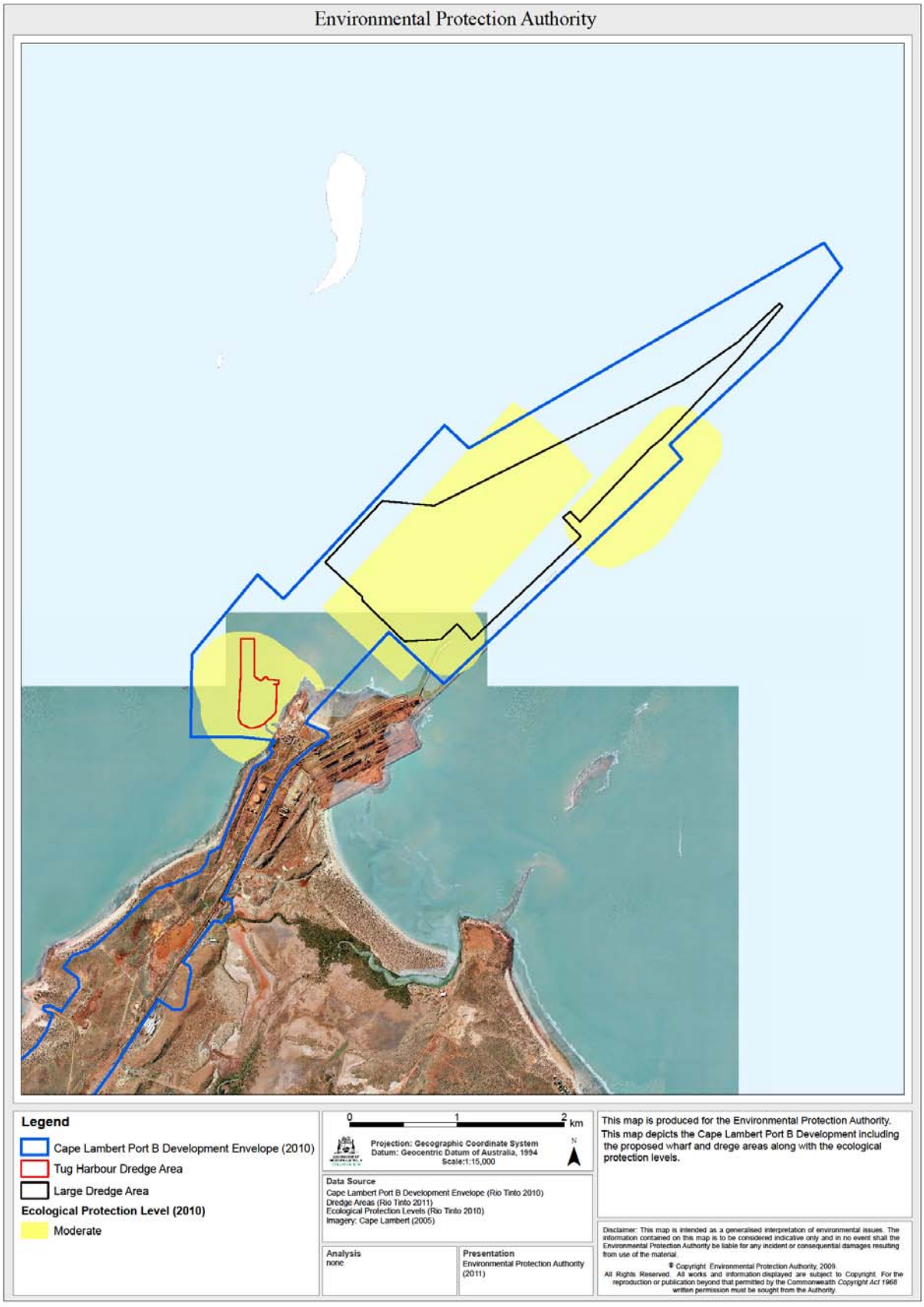

Figure 6: Marine Component of Proposal Footprint

Table 11a. Coordinates of Dredging Footprint – Tug Harbour (Small Area)

GDA94 MGA zone 50	
Easting	**Northing**
517782.7	7723092.5
517748.5	7723096.1
517689.4	7723102.4
517682.9	7723103.1
517681.9	7723104.3
517679.1	7723108.2
517677.8	7723109.9
517663.5	7723129.4
517651.0	7723120.6
517638.5	7723111.7
517615.7	7723087.6
517604.3	7723095.3
517595.8	7723101.2
517590.1	7723105.1
517566.8	7723121.1
517563.5	7723123.4
517556.9	7723127.9
517553.85	7723129.99
517553.37	7723481.42
517509.75	7723481.48
517425.15	7723481.61
517426.51	7723158.12
517423.27	7723068.5
517407.08	7722756.97
517408.04	7722736.34
517430.77	7722686.32
517501.85	7722652.46
517548.42	7722651.77
517597.02	7722662.66
517640.32	7722685.16
517745.6	7722782.34
517756.94	7722810.97
517758.02	7722921.1
517758.62	7723054.68
517736.27	7723054.68
517742.3	7723058.3
517778	7723053.5
517779.9	7723067.7
517780.4	7723071.4

Table 11b. Coordinates of Dredging Footprint – Large Area

GDA94 MGA zone 50	
Easting	**Northing**
522478.59	7726579.50
522451.57	7726605.30
522061.36	7726245.82
521556.30	7725895.80
520994.19	7725603.64
519230.92	7724720.37
518746.58	7724765.10
518214.33	7724194.32
518560.79	7723871.24
518563.05	7723836.54
518952.74	7723456.85
519293.94	7723476.57
519445.02	7723618.78
519582.47	7723470.36
520599.83	7724434.00
520431.26	7724611.98
520499.88	7724666.36
520592.20	7724568.29
521247.80	7725259.07
521359.69	7725347.73
522091.70	7726118.85

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 22 December 2011

Attachment 4 to Ministerial Statement 840

Change to Proposal

Proposal: Cape Lambert Port B Development, Shire of Roebourne

Proponent: Pilbara Iron Pty Ltd

Change: Additional clearing – Additional 46 ha of terrestrial clearing. Inclusion of figure 7 depicting Terrestrial Component of the Proposed Footprint

Key Characteristics Table:

Element	**Description of proposal**	**Description of approved change to proposal**
Life of Project	At least 50 years	At least 50 years
Iron ore throughput capacity	up to 130 Mtpa	up to 130 Mtpa
Stockyard capacity	Storage to accommodate up to 130 Mtpa	Storage to accommodate up to 130 Mtpa
Total footprint of land-based activities	340 ha	**386 ha**
Total area of vegetation clearing within the footprint	300 ha	**346 ha**
Dredging: Volume of sea bed to be dredged for berth pockets, turning basins, departure channel, service wharf B and tug harbour extension:	Up to 14.545 Mm^3	Up to 14.545 Mm^3
Area of sea bed to be dredged:	Up to 346 hectares	Up to 346 hectares
Dredging depths; • berth pockets; • approach/departure channel; and • turning basins.	• 20 metres Chart Datum; • 16 metres Chart Datum; and • 10 metres Chart Datum.	• 20 metres Chart Datum; • 16 metres Chart Datum; and • 10 metres Chart Datum
Duration of dredging program:	Approximately 64 weeks	Approximately 64 weeks

Dredge disposal:		
number of spoil grounds in State waters:	1	1
Dimensions of spoil ground:	2 km long by 1 km wide	2 km long by 1 km wide
Volume of dredge spoil to be disposed of in Western Australian State Waters:	6.606 Mm^3	6.605 Mm^3
Amount of dredge spoil to be disposed of onshore	0 Mm^3	0 Mm^3
Duration of pile driving operation	Approximately 52 weeks	Approximately 52 weeks
Access jetty and wharf:	Open trellis design allowing water flow beneath	Open trellis design allowing water flow beneath
Design:		
Length:	Up to 2.2 km (from conveyor junction on land to end of wharf).	Up to 2.2 km (from conveyor junction on land to end of wharf).
Number of ship loading berths:	Up to 4	Up to 4
Major plant components:		
Car dumpers:	3	3
Screenhouses (lump rescreening plants):	2	2
Sample stations/systems:	2	**4**
Stackers:	3 or 4	3 or 4
Reclaimers:	3	3
Shiploaders:	2	2

Abbreviations

Mtpa	million tonnes per annum
ha	hectares
Mm^3	million cubic metres
km	kilometre

Note: Text in **bold** in the Key Characteristics Table, indicates change/s to the proposal.

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 28 March 2012

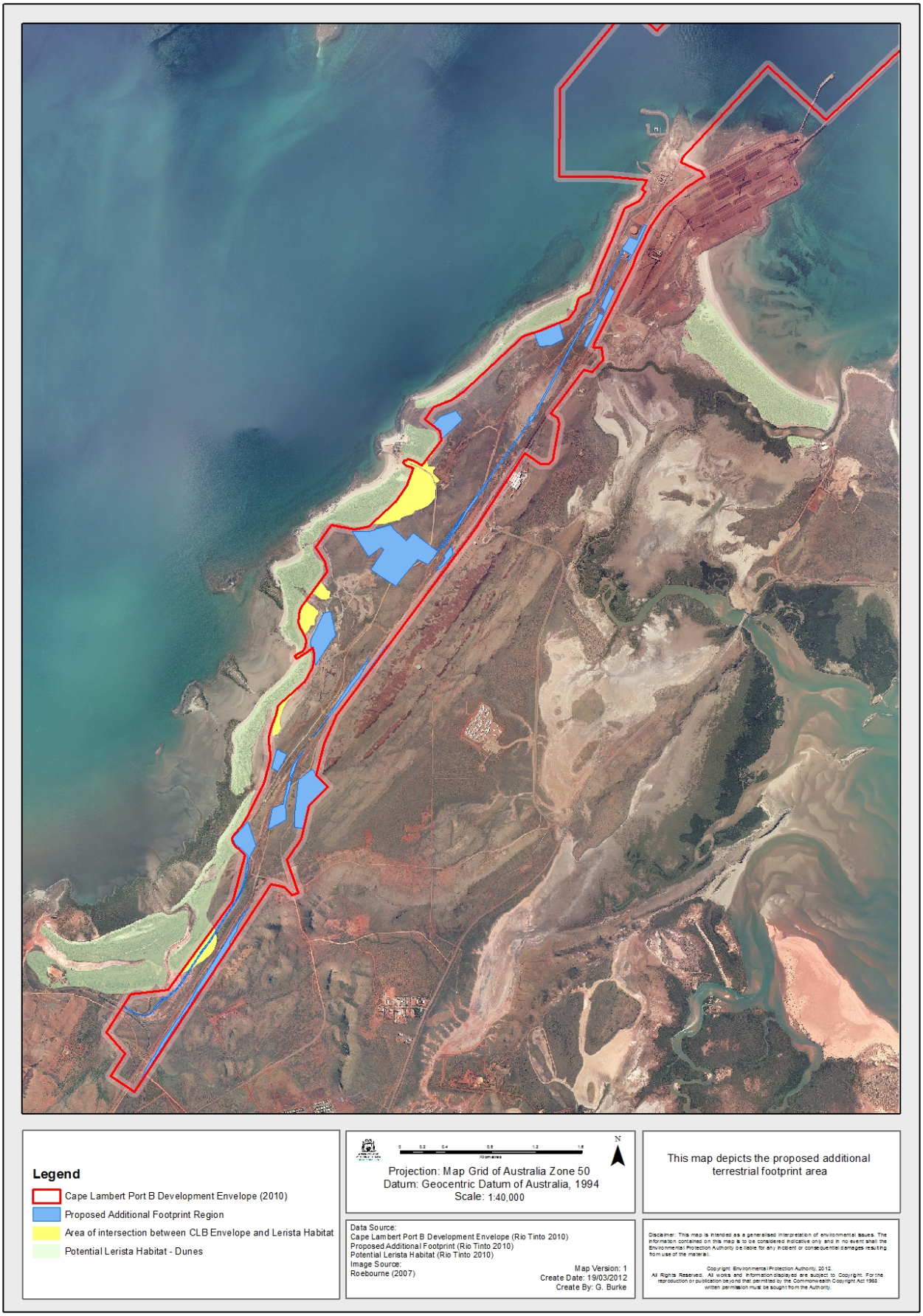

Figure 7: Terrestrial Component of Proposal Footprint