Published on 4 November 2009 Statement No. 812

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

DREDGING AT NELSON POINT, BHP BILLITON RGP6 PROJECT, PORT HEDLAND

Proposal: The proposal involves the dredging of not more than 6 million cubic metres (Mm^3) of material for two new berth pockets and extensions to the existing departure channel and swing basin at Nelson Point to accommodate vessels of approximately 250,000 dead weight tonnes (DWT); disposal of dredged material at both offshore in Commonwealth waters site and to a land based dredged material management area (DMMA), as documented in schedule 1 of this statement.

Proponent: BHP Billiton Iron Ore Pty Ltd.

Proponent Address: Level 17, 225 St George's Terrace, PERTH WA 6000

Assessment Number: 1803

Report of the Environmental Protection Authority: Report 1337

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 (CEO) of the Department of Environment and Conservation 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 of the Department of Environment and Conservation 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 submit a compliance assessment plan to the satisfaction of the CEO of the Department of Environment and Conservation, prior to implementation of the proposal and at least six months prior to the first compliance report required by condition 4-6, which ever is sooner.

4-2 The proponent shall implement and maintain, to the satisfaction of the CEO of the Department of Environment and Conservation, the compliance assessment plan required by condition 4-1. 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-compliances 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 of the Department of Environment and Conservation.

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

4-6 The proponent shall submit a compliance assessment report annually from the date of issue of this Implementation Statement addressing the previous twelve month period or other period as agreed by the CEO of the Department of Environment and Conservation. The compliance assessment report shall:

1. be endorsed by the proponent's Managing Director or a person, approved in writing by the Department of Environment and Conservation, 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 Performance Review and Reporting

5-1 The proponent shall submit to the CEO of the Department of Environment and Conservation a Performance Review Report at the conclusion of the first, second, fourth and sixth years after the start of dredging and then, at such intervals as the CEO of the Department of Environment and Conservation may regard as reasonable, which addresses:

1. the key environmental risks and impacts; the performance objectives, standards and criteria related to these; the success of risk reduction/impact

mitigation measures and results of monitoring related to management of the major risks and impacts;

2. the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable; and

3. significant improvements gained in environmental management which could be applied to this and other similar projects.

6 Marine Water Quality

6-1 The proponent shall implement the Dredging Management Plan included as Appendix B3 of the *Environmental Referral Document: Port Hedland Nelson Point Dredging, August 2009,* or as amended in consultation with the Department of Environment and Conservation to the satisfaction of the CEO of the Department of Environment and Conservation from commencement of works.

The objectives of the Plan are to protect the environmental values of Port Hedland harbour by ensuring water quality meets the levels of ecological protection as spatially defined in Figure 4.15 of the *Environmental Referral Document: Port Hedland Nelson Point Dredging, August 2009*.

6-2 Implementation of the Plan referred to in condition 6-1 shall include:

1. water quality monitoring during the dredging campaign for the collection of physical water quality data via loggers incorporating the following parameters: turbidity; pH; dissolved oxygen; conductivity; and temperature, at sites in and adjacent to Oyster Inlet and sites in and adjacent to the Port Hedland harbour as illustrated in Figure 8.10 of the *Environmental Referral Document: Port Hedland Nelson Point Dredging, August 2009*;

2. water quality monitoring for the collection of total suspended solids concentrations and turbidity measurements at the spoil disposal discharge associated with Dredged Material Management Area (DMMA H) and the logged impact sites downstream Figure 8.9-10 of the *Environmental Referral Document: Port Hedland Nelson Point Dredging, August 2009*;

3. water quality monitoring during the dredging campaign for the collection of dissolved metals and ammonia concentration data, collected at impact and control sites for the receiving waters of the DMMA H return water discharge and at sites in the Port Hedland Harbour affected by the dredging activity. Monitoring sites are located in Dredge Management Plan. Pre-impact monitoring will be undertaken over a number of tidal cycles and seasons;

4. water quality trigger levels based on both ‘moderate’ and ‘high’ levels of ecological protection apply to this project and will be derived according to the guidance in the table below:

Table 1: Water quality trigger levels for contingency measures

Parameter	Trigger Level (High Protection Level Areas)	Trigger Level (Moderate Protection Level Areas)
Turbidity (NTU)	Median > 80th percentile of baseline or reference site data	Median > 95th percentile of baseline or reference site data
Temperature	Median < 20th or > 80th percentile of baseline or reference site data	Median < 5th or > 95th percentile of baseline or reference site data
pH	Median < 20th or > 80th percentile of baseline or reference site data	Median < 5th or > 95th percentile of baseline or reference site data
Dissolved Oxygen	< 60$^{\%}$ saturation	< 60$^{\%}$ saturation
Conductivity	Median < 20th or > 80th percentile of baseline or reference site data	Median < 5th or > 95th percentile of baseline or reference site data
Metals	95th percentile ≤ 99% species protection trigger level *	95th percentile ≤ 90% species protection trigger level *

* ANZECC and ARMCANZ (2000).

5. contingency management measures that will be implemented in the event that marine water quality does not meet described water quality triggers as a result of dredging activities and/or return water discharge; and
6. the procedures for reporting the results of water quality monitoring, exceedance of any water quality trigger levels and effectiveness of the contingency management measures.

7 Acid Sulphate Soils

7-1 The proponent shall implement the Acid Sulphate Soil Management Plan as included as Appendix B2 of the *Environmental Referral Document: Port Hedland Nelson Point Dredging, August 2009,* or as amended in consultation with the Department of Environment and Conservation, to the satisfaction of the CEO of the Department of Environment and Conservation from commencement of works.

The objectives of the Plan are to:

1. minimise the risk to the environment resulting from Acid Sulphate Soils; and
2. maintain and protect water quality for existing environmental values and ecosystem functions.

7-2 Implementation of the Plan referred to in condition 7-1 shall include:

1. monitoring of excess water from the Dredged Material Management Area (DMMA H) that will be discharged through a fixed discharge point to ensure it meets the action criteria outlined in Table 6 dewatering effluent monitoring matrix, in the guideline Draft Treatment and management of soils and water in acid sulphate soil landscapes, Department of Environment and Conservation, January 2009.
2. monitoring of excess water from the DMMA H for total titratable acidity, electrical conductivity and pH to ensure that water quality parameters are maintained at a pH greater than 6 and a total titratable acidity less than 40 milligrams per litre;
3. contingency management measures that will be implemented in the event that action criteria are exceeded; and
4. a monitoring program for the presence of iron monosulphides and total acidity within DMMA H on an annual basis for five years following completion of the dredging. Should levels of iron monosulphides and total acidity within DMMA H be detected that require further management, the proponent shall initiate a management response to neutralise this material.

8 Land use Management and Rehabilitation

8-1 The proponent shall implement the Land Use Management Plan included as Appendix B5 of the *Environmental Referral Document: Port Hedland Nelson Point Dredging, August 2009,* or as amended in consultation with the Department of Environment and Conservation, to the satisfaction of the CEO of the Department of Environment and Conservation from commencement of works.

The objectives of the Plan are to:

1. minimise adverse effects on the environmental values of surrounding areas from processes such as dust generation, changes in surface water drainage, weed infestation and impacts on fauna;
2. ensure that the Dredged Material Management Area (DMMA H) land surface is managed such that it is safe, stable and suitable for designated end land use;
3. maintain a landscaped view of the area; and
4. identify an environmentally sustainable final land use for the reclaimed material and management areas.

8-2 Specifically the Proponent is required to ensure that:

1. minimal additional wind-born dust generated by the DMMA H during periods of high winds;
2. no uncontrolled erosion impacts beyond the DMMA H drainage system;

3. sediment loads in drainage system stormwater flows cause minimal change to receiving water quality;
4. adequate vegetation established over 80% of revegetation areas within two years of revegetation;
5. no more than 10% of DMMA H surface area and visual berm areas infected by weeds; and
6. no uncontrolled slumping of berm surfaces beyond geotechnical limits.

8-3 In accordance with the criteria established for the Port Hedland area by the Government led Port Hedland Dust Taskforce, the proponent will ensure that:

1. the Proponent shall ensure ambient air quality monitoring is conducted for 24 hour average PM_{10} (particulate matter with an equivalent aerodynamic particle size below 10μm diameter) ambient dust levels at a site located in Wedgefield;
2. demonstrates that the DMMA H area is not contributing significantly to background dust levels established for the Port Hedland area by the Government led Port Hedland Dust Taskforce;
3. ensures that minimal additional wind-born dust generated by the DMMA H during periods of high winds;
4. allows no uncontrolled erosion impacts beyond the DMMA H drainage system;
5. ensures that sediment loads in drainage system stormwater flows cause minimal change to receiving water quality; and
6. the proponent shall continue to employ a public complaints receipt and management process and where determined to be the cause, ensure mitigating measures are implemented to reduce dust emission.

8-4 The proponent shall rehabilitate DMMA H if material is not utilised within five years following the completion of dredging.

Notes

1. Where a condition states "on advice of the Environmental Protection Authority", the Environmental Protection Authority will provide that advice to the Department of Environment and Conservation for the preparation of written notice to the proponent.

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

3. The Minister for Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment and Conservation over the fulfilment of the requirements of the conditions.

Donna Faragher JP MLC
MINISTER FOR ENVIRONMENT; YOUTH

Schedule 1:

Table 1: Key Characteristics

Element	Description
Volume of material to be dredged	Not more than 6 Mm^3 based on: • Approx 2.7 Mm^3 offshore disposal • Approx 4.0 Mm^3 onshore disposal
Duration of dredging	Off shore disposal: Approx. 68 weeks
	On shore disposal: Approx. 46 weeks
Area of marine disturbance for dredging	Not more than 60 hectares (ha) at Nelson Point
Area of land disturbance for dredging	DMMA H construction footprint not more than 204 ha that includes: • a 60 m wide pipeline corridor from DMMA H across Lumsden Point to Harbour, temporary haul road, turning areas, and windrows, batters and scour protection • 40 m wide overflow channel from DMMA H to South East Creek including scour protection
BPPH: Area of direct/indirect mangrove loss	• Closed canopy mangroves not more than 0.22 ha • Scattered mangroves not more than 3.78 ha (predominantly *Avicennia marina* closed canopy and scattered – considered a high value species)
BPPH: Area of direct/indirect samphire meadow loss	• Not more than 10 ha in DMMA H
BPPH: Area of direct/indirect of cynobacterial mats loss	• Not more than 78.8 ha in DMMA H
Offshore disposal of dredged material	Not more than 2.7 Mm^3 to Spoil Ground '1' (Commonwealth waters)
Onshore disposal of dredged material	Not more than 4.0 Mm^3 to DMMA H (excluding bulking)
Final height of DMMA H	Not more than +9.0 m AHD

The dredging works involve:

- The dredging of PASS and non-PASS material with a Backacter Dredge with subsequent offshore disposal to Spoil Ground '1' via split hopper barges; and
- The dredging of non-PASS material with a Cutter Suction Dredge and the pumping of dredged material onshore to DMMA H.

Capital works for the development of DMMA H will involve the following:

- Construction of a perimeter earth bunds to +0.9 m AHD at DMMA H.
- Construction of an approx 40 m wide overflow channel from DMMA H to South East Creek, including scour protection.
- Construction of an approx 60 m wide pipeline corridor (reduced to 20 m in areas of closed canopy mangroves) from DMMA H north across Lumsden Point out to the Harbour to allow the installation of the two 900 mm internal diameter steel pipelines (one live, one as spare). This will allow for the pumping of material from the dredge to DMMA H. This corridor allows for:
    - Safe access for construction vehicle traffic;
    - Windrows, batters, and scour protection;
    - A temporary haul road on one side for construction of the pipeline corridor; and
    - An allowance for turning areas and contractor lay down.
- A construction boundary will be established around the bund walls and pipeline corridors including a 20 m buffer on each side of the outlet channel. This construction boundary will only be disturbed during the project for construction activities such as lay down areas, haul roads, and construction access. Disturbance within this construction boundary will be minimised where possible.

Figures (attached):

Figure 1: Existing and proposed berth developments in Port Hedland inner harbour

Figure 2: Dredging at Nelson Point – key proposal components

Figure 3: Dredging footprint and dredging material management area DMMA H

Figure 4: Levels of ecological protection and benthic primary producer habitat identified in Port Hedland harbour

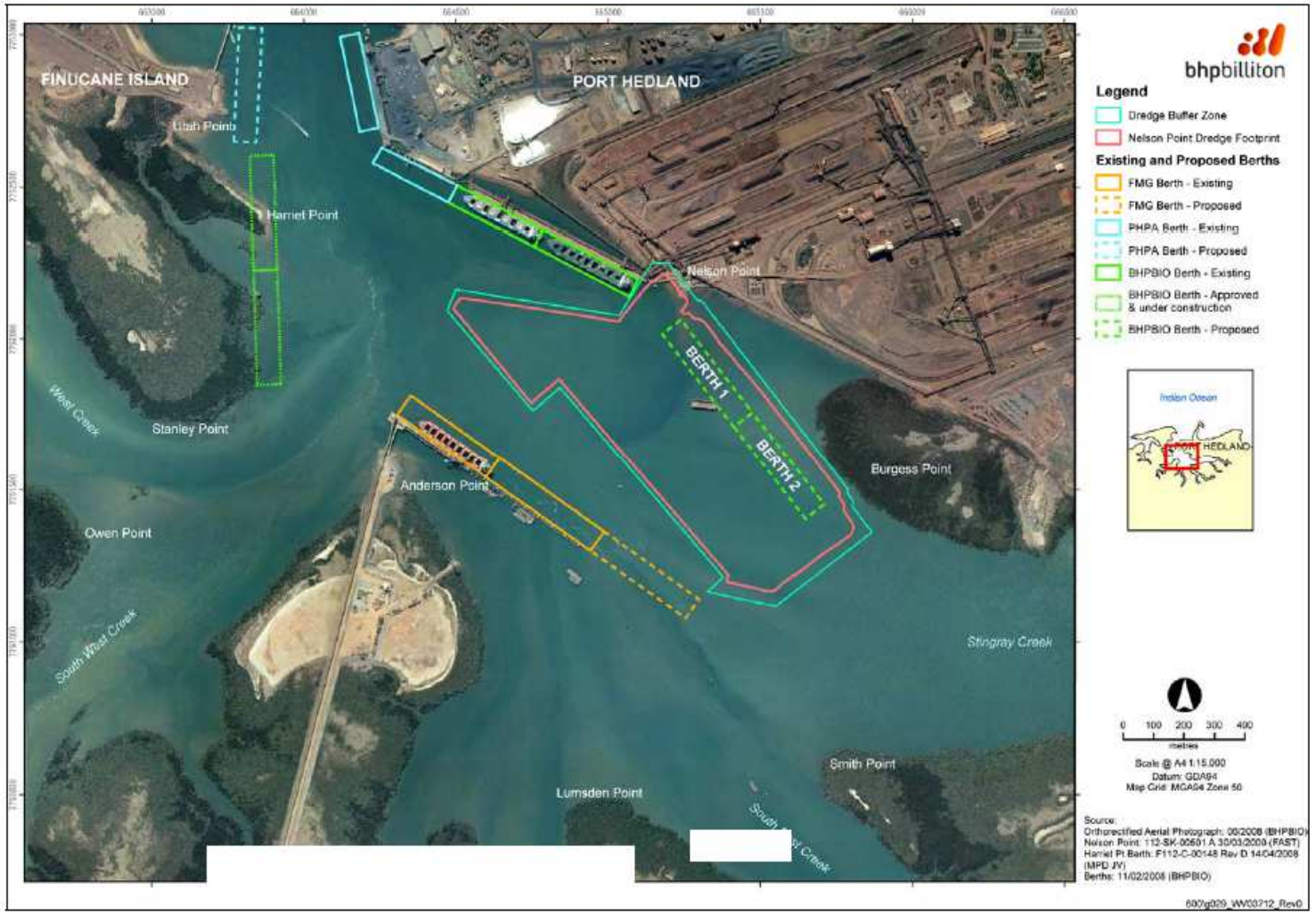

Figure 1: Existing and proposed berth developments in Port Hedland inner harbour (BHPBIO, 2009)

Figure 2: Dredging at Nelson Point – key proposal components (BHPBIO, 2009)

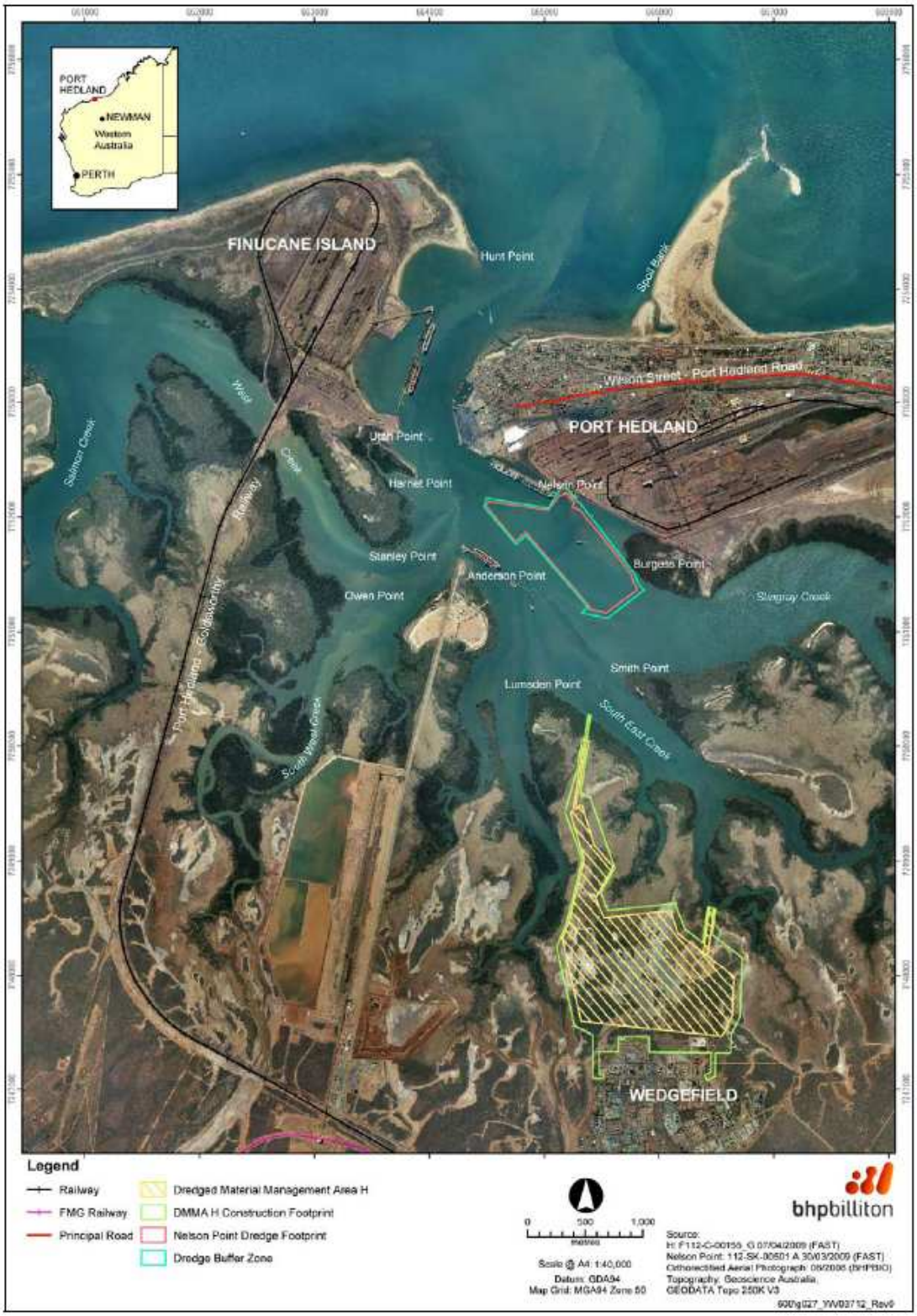

Figure 3: Dredging footprint and dredged material management area DMMA H (BHPBIO, 2009)

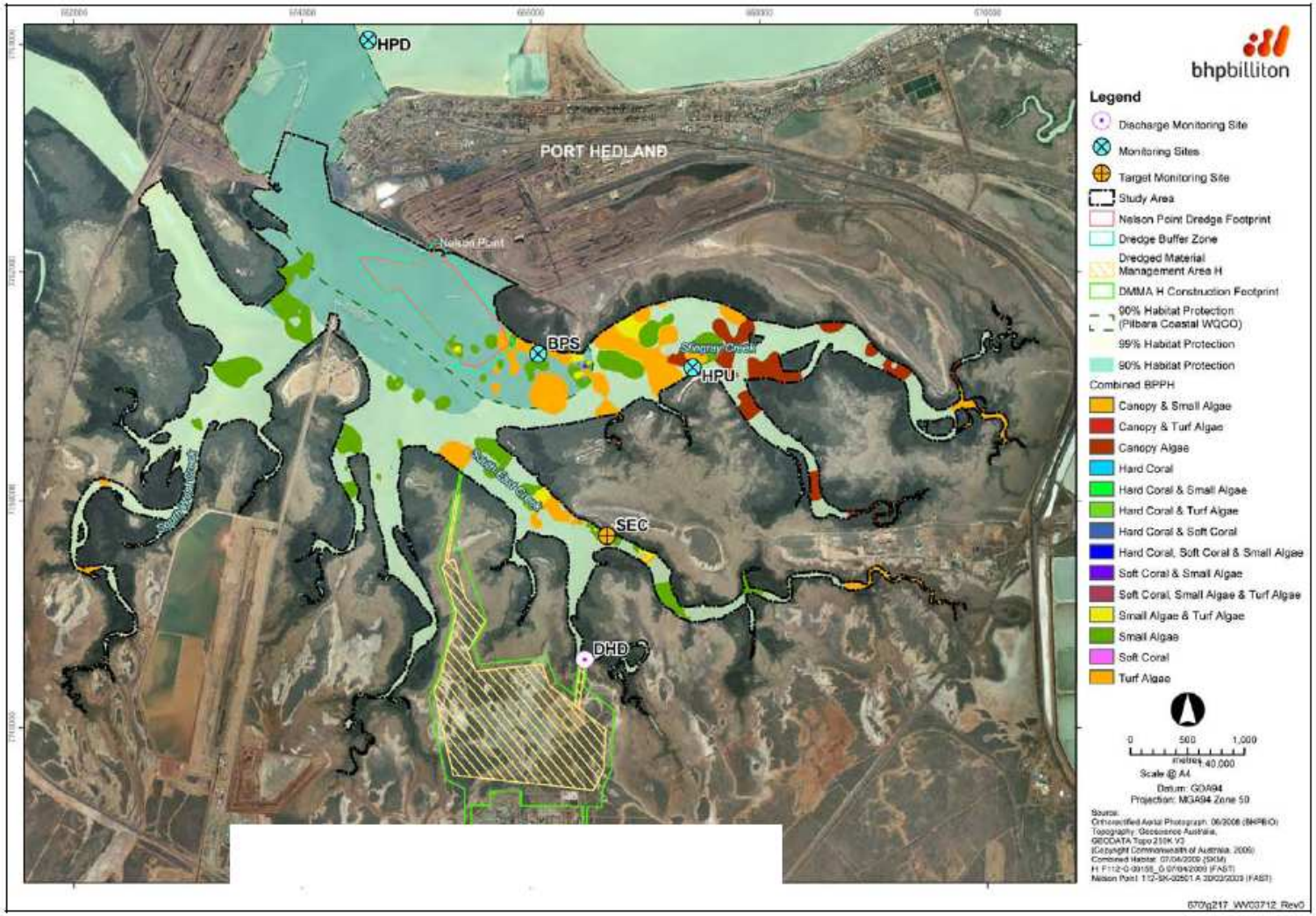

Figure 4: Levels of ecological protection and benthic primary producer habitat identified in Port Hedland inner harbour (BHPBIO, 2009)