



## Section 4

### Stakeholder Consultation





## 4 Stakeholder Consultation

### 4.1 Introduction

This chapter details the stakeholder consultation and engagement process that was undertaken to assist in the Public Environmental Review and draft Environmental Impact Statement (PER/Draft EIS) for the proposed Outer Harbour Development Port Hedland ongoing consultation program.

Opportunity for feedback provided by stakeholders about the Outer Harbour Development has been made available to a range of groups, individuals, government agencies, service providers, community stakeholders and general public.

The purpose of the consultation and engagement process was to identify issues that could be considered as part of the procedure of investigating project alternatives and design and assessing selected project options. Comment was received from a range of parties on a variety of issues that were considered in the compilation of the PER/Draft EIS.

### 4.2 Consultation and Engagement

Genuine engagement and partnership with the community, stakeholders and all levels of government are critical to identifying and delivering positive legacies to communities in which BHP Billiton Iron Ore operates.

Under the joint government statutory process, public consultation for this project is to be consistent with that of a PER/Draft EIS level assessment and is to include an eight-week public exhibition of the PER/Draft EIS. During this period regular consultation and engagement will be held in the Hedland and Newman regions to seek public feedback.

BHP Billiton Iron Ore stakeholder consultation and engagement process has been a regular and ongoing procedure that has established good community relationships and an environment conducive to productive dialogue.

The stakeholder consultation and engagement supporting the detail of the PER/Draft EIS has included the following:

- ▶ a comprehensive identification and analysis of stakeholders;
- ▶ development of stakeholder engagement and corporate social responsibility policy frameworks, communications strategies, social issues management and mitigation plans;
- ▶ public workshops to register key community issues that may be impacted by or created by company growth works;

- ▶ regular stakeholder engagement by community teams located in Port Hedland establishing solid work-based relationships;
- ▶ focus on the development and implementation of impact management strategies;
- ▶ development of a schedule of consultation and engagement processes;
- ▶ integration with other internal asset development and environmental approvals processes and relevant procedures;
- ▶ development of electronic information repositories and data capture systems; and
- ▶ consultation and engagement in accordance with the ongoing consultation program.

Stakeholder consultation and engagement materials other than the PER/Draft EIS document and appendices that have been produced to support the PER/Draft EIS include:

- ▶ information sheets detailing the proposed project and key community issues;
- ▶ a 25-minute DVD outlining the proposed project complete with animation of the Outer Harbour Development;
- ▶ a poster of the project erected at the Port Hedland airport in a high visitation area;
- ▶ interpretation signage etched into steel display plates to be installed at Port Hedland town park;
- ▶ display signage and information panels erected at high-traffic areas such as the Port Hedland shopping centre; and
- ▶ regular stakeholder engagement and updates about the proposed project.

### 4.3 Key Stakeholders

Communities in the Port Hedland, South Hedland and Wedgefield districts, government agencies, services and local media have been consulted on the proposed Outer Harbour Development and BHP Billiton Iron Ore's other growth projects. Their feedback has assisted in the preparation of the PER/Draft EIS. The matrix identifying key stakeholders to participate in this wider process is shown in

**Figure 4.1.** A consultation and engagement program was developed and implemented based on the stakeholder list.

A list of key stakeholders and communities of interest for the Outer Harbour Development was developed early in the impact assessment process. This has been reviewed and expanded throughout the consultation and engagement process.

BHP Billiton Iron Ore has identified a list of stakeholders who have specific interests in the Outer Harbour Development. This list includes (but is not limited to) the stakeholders shown in **Table 4.1**.

**Table 4.1 – Key Stakeholders**

<b>Category</b>	<b>Group</b>
Government	Office of the Environmental Protection Authority (OEPA) Department of Environment and Conservation (DEC) <ul style="list-style-type: none"> <li>▶ Karratha Regional Office</li> <li>▶ Marine Ecosystems Branch</li> <li>▶ Environmental Management Branch</li> </ul> Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) Australian Maritime Safety Authority (AMSA) Department of Indigenous Affairs (DIA) Department for Planning and Infrastructure (DPI) Department of State Development (DSD) Department of Water (DoW) <ul style="list-style-type: none"> <li>▶ Regional Office (Karratha)</li> </ul> LandCorp Main Roads Western Australia (MRWA) Water Corporation Department of Fisheries (DoF) Department of Transport Department of Mines and Petroleum Department of Regional Development and Land Port Hedland Port Authority (PHPA) Town of Port Hedland
Non-government organisations and service providers	Community groups Environmental groups Private sector service providers Research groups Regional Health Executive Council Care for Hedland Environmental Association Pilbara Development Commission (PDC) Tourism operators
Industry and business	Pilbara Industry's Community Council (PICC) Port Hedland Chamber of Commerce and Industry
Indigenous groups	Traditional land owners
Landholders	Pastoral lease holders and managers Freehold landowners
General public	Local Regional State Territory National
Relevant communities	Port Hedland South Hedland Wedgefield Newman
Employees and contractors	BHP Billiton Iron Ore staff
Recreational	Port Hedland Yacht Club Anglers Club

Commonwealth and State Agency representatives were consulted during the preparation of the Environmental Scoping Document (ESD) and reviewed the draft ESD. Issues raised by agencies were included in the final ESD and have been addressed in the PER/Draft EIS. Key stakeholders were briefed on the progress of the project's environmental and engineering studies in October 2009.

## 4.4 Community Consultation

The process of community consultation is outlined in **Figure 4.2**. A range of consultation workshops (Dialogue Cafés) were held in Port Hedland in March 2009 to gauge community attitudes to impacts as a result of growth works.

### 4.4.1 Identifying and Managing Growth Issues

Environmental impacts (marine habitat threats, increased water usage, dust and noise), while still important to the community that was consulted, were generally rated lower (refer to **Figure 4.3**) than aspects associated with the community services such as health, emergency services, recreation and supporting community development. It was generally recognised by the participants supporting community development that BHP Billiton Iron Ore manages the environmental aspects of its' growth projects well.

To assist in identifying the most beneficial strategies to address the environmental impacts the data was graphed according to the percentage of people who rated the impact as critical – absolutely vital to address (Creating Communities 2009) (refer to **Figure 4.4**).

The results of the critical response proportion contrast more starkly than the average scores and provide more clarity as to the most critical impacts. When comparing the percentage of participants who rated issues as "critical to address" and average scores, the environmental impacts of increased water usage, dust, marine habitats and noise continued to be generally ranked lower than social issues.

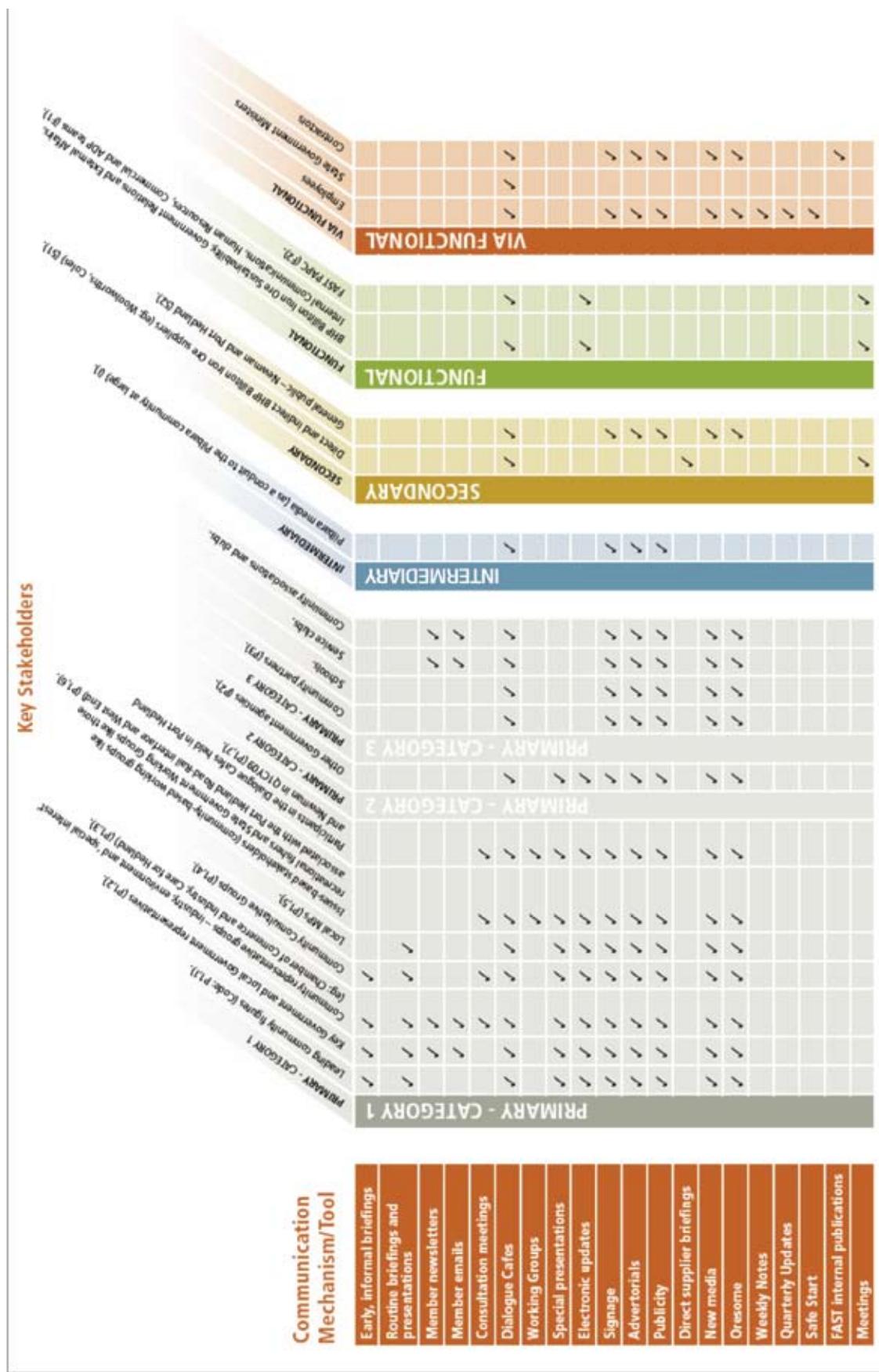
The Dialogue Café consultation sessions clearly identified the growth impacts that are important to the Hedland community. Those impacts identified as

"critical to address" are those that the community expects BHP Billiton Iron Ore to have an ongoing role in addressing and that BHP Billiton Iron Ore will focus its mitigation investment strategies around these.

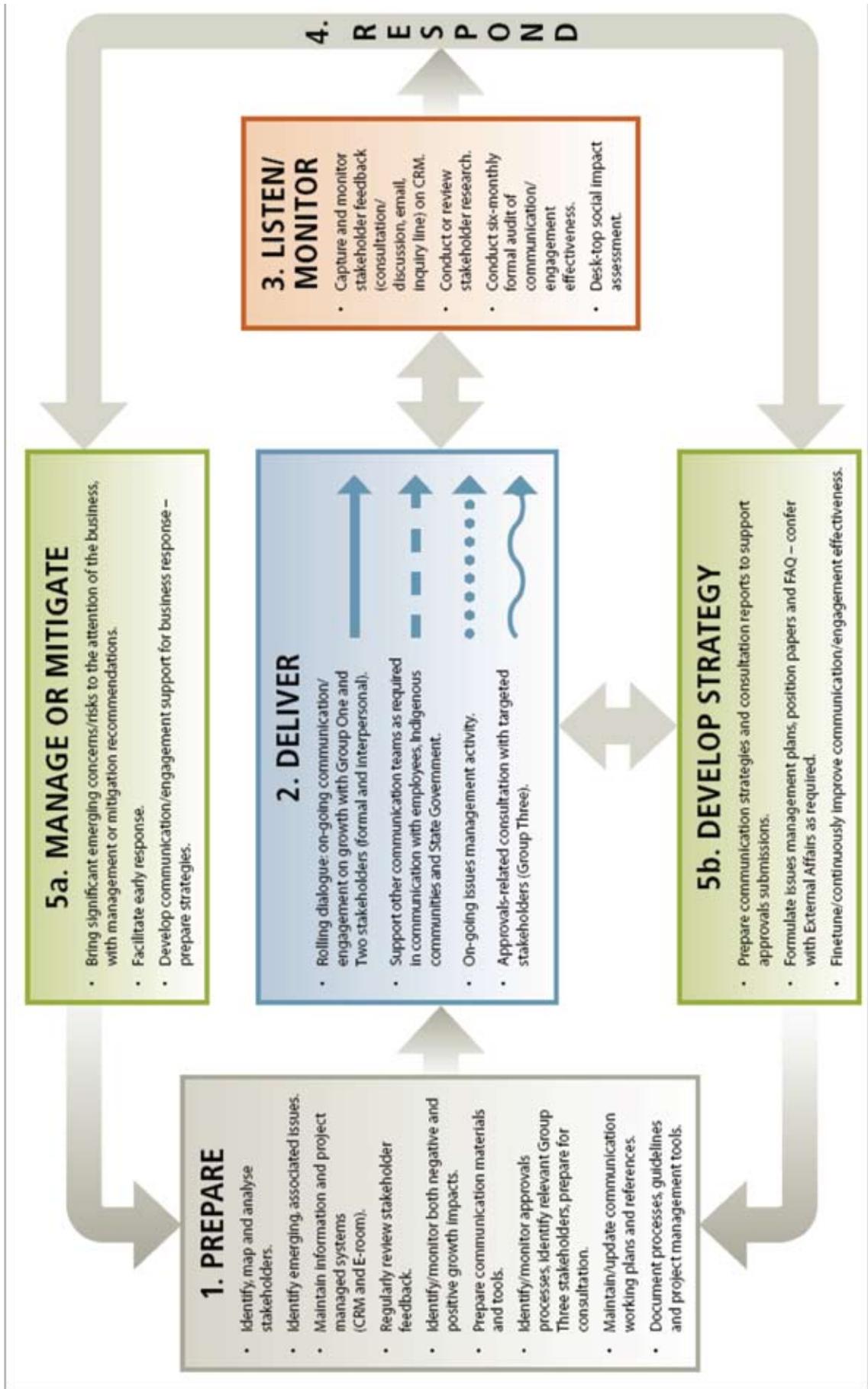
While the community perceived all of the identified impacts as important to address, this highlights the complexity of identifying and implementing the most beneficial strategies to address impacts. A further complication is determining who is responsible for addressing the impact. The Dialogue Cafés results provided an indication of priority areas for BHP Billiton Iron Ore to focus its community investment, and inform future investment decisions that maximise benefits in the local communities of the Town of Port Hedland. Key areas that the Dialogue Café identified that need to be addressed included:

- ▶ develop essential service worker accommodation;
- ▶ collaboratively develop a Community Development Plan;
- ▶ establish Community Services Partnership;
- ▶ small business incubation;
- ▶ initiate Annual Quality of Life and Wellness project; and
- ▶ initiate an Economic Development Strategy with ToPH.

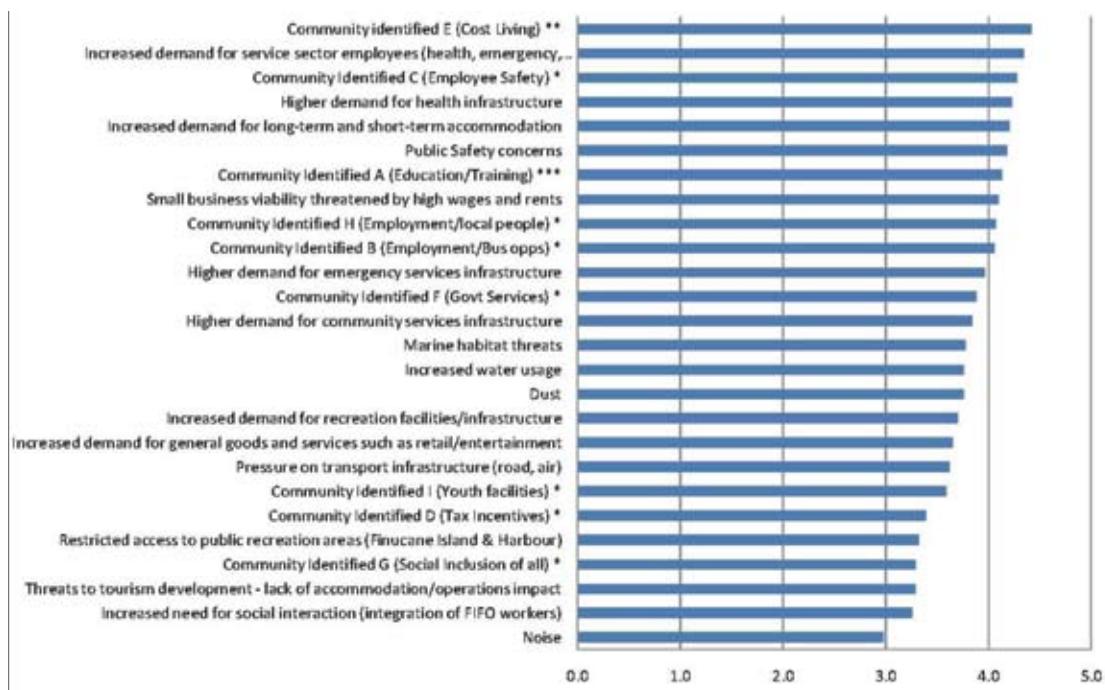
In addition to the Dialogue Café sessions, project briefing meetings were held with relevant community and key stakeholders and representatives from State and Federal government agencies.



**Figure 4.1 – Communications Matrix**



**Figure 4.2 – Community Dialogue Process Chart**



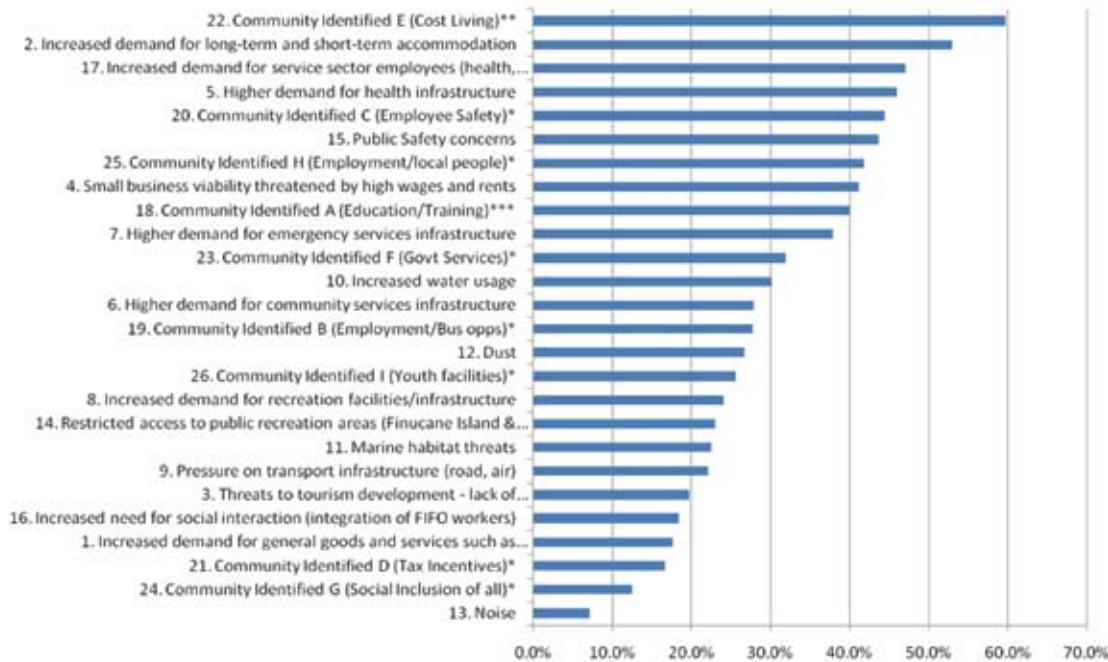
Note: Impacts identified by the community are labelled "Community Identified X" with the specific impact shown in brackets.

\* Identified in one session

\*\* Identified in two sessions

\*\*\* Identified in all three sessions

**Figure 4.3 – Town of Port Hedland Growth Impacts Relative Importance – Average Scores**



Note: Impacts identified by the community are labelled "Community Identified X" with the specific impact shown in brackets.

\* Identified in one session

\*\* Identified in two sessions

\*\*\* Identified in all three sessions

**Figure 4.4 – Town of Port Hedland Dialogue Café Critical Responses Proportion**

## 4.5 Consultation with Government and Industry

BHP Billiton Iron Ore has engaged in extensive consultations with the PHPA, interested State government departments and iron ore developers on the project footprint.

In 2007, the State Government sought to understand whether BHP Billiton Iron Ore's Outer Harbour Development plans would hinder the development of other potential resource proponents in the Port Hedland region. The then Department for Planning and Infrastructure and the PHPA led an analysis to ensure the needs of other parties could be accommodated. This fatal flaw analysis showed that our plans were not a barrier to other potential entrants.

Over time, a range of parties including the PHPA and other potential resource proponents have amended and further developed their plans. BHP Billiton Iron Ore have accommodated these plans by moving the proposed infrastructure from an east - west alignment to a north - south alignment to allow for parallel infrastructure corridors. In addition, a number of third parties have required cross-overs of BHP Billiton Iron Ore's infrastructure and again, the third party needs have been accommodated. More recently, BHP Billiton Iron Ore have agreed to surrender part of their tenure to permit the development by Roy Hill Iron Ore P/L's rail infrastructure at Port Hedland.

In late 2009, BHP Billiton Iron Ore supported the creation of a Department of Transport (DOT) led interdepartmental and industry working group to progress a range of development issues associated with the Outer Harbour Development land requirements.

The current footprint was initially released to the PHPA, DSD, Department of Transport (DoT) and Department of Mines and Petroleum (DMP) in March 2010. Regular meetings have since been held with the working group, including the DOT, DSD, DMP, Department of Regional Development and Lands (DRDL), PHPA and LandCorp.

To date, the outcomes of this working group have resulted in alignment amongst government agencies, the PHPA and potential proponents to the PHPA's Ultimate Development Plan (UDP) which incorporates the Outer Harbour Development.

Further, in mid-2010, BHP Billiton Iron Ore commenced consultations with Roy Hill Infrastructure, and the companies have since jointly agreed and aligned their Port Hedland land requirements in order to facilitate both companies' growth plans. As a result of this consultative process, BHP Billiton Iron Ore and Roy Hill Infrastructure have confirmed the alignment of their project footprints with the State.

**Table 4.2** provides a summary of queries and comments raised during briefings undertaken for BHP Billiton Iron Ore projects to date, as well as cross references to sections of the PER/Draft EIS where additional information is provided.

## 4.6 Ongoing Consultation

The PER/Draft EIS consultation and engagement program will continue throughout the environmental approvals process. Relevant government agencies were provided with a draft of the PER/Draft EIS prior to its issue for public review. Issues raised by the agencies were addressed prior to release of the PER/Draft EIS for public review comment. The eight week public review and comment period for the PER/Draft EIS is an important opportunity for stakeholders to provide formal input into the PER/Draft EIS process. While this eight week period is formally a government led consultation period, BHP Billiton Iron Ore will continue to respond to public inquiries about the PER/Draft EIS and growth in Port Hedland.

There will be a number of opportunities for the community to access information about the PER/Draft EIS throughout the public comment period, including public meetings and briefings held in the Town of Port Hedland. The PER/Draft EIS will also be available on BHP Billiton's website throughout this period ([www.bhpbilliton.com](http://www.bhpbilliton.com)).

**Table 4.2 – Summary of Key Queries and Comments Raised During Consultation with State and Local Government Agencies, Non Government Organisations and Other Stakeholders**

Themes	Stakeholder	Summary of Queries / Comments Raised	Mitigation Plan and Strategies
Marine Fauna – Turtles	Karratha Regional Offices of DEC and Dow	Consideration of turtles and turtle behaviour should be evaluated (e.g. lighting, plume, dredging and other boat movements).	The risk of the proposed dredging impacting on turtles has been assessed and is considered to have a minor risk. For further information refer to <b>Section 10</b> . Co-ordinated turtle monitoring programmes undertaken with Care for Hedland. A Marine Turtle Management Plan ( <b>Appendix A1</b> ) has been developed and incorporates a monitoring program and management measures for marine turtles.
	DEC Environmental Management Branch Care for Hedland	Address whether the proposed dredging and spoil disposal will impact on juvenile turtle habitat.  Has the turtle nesting season been considered during the proposed dredging program?	BHP Billiton Iron Ore have undertaken studies within the Port Hedland region to: <ul style="list-style-type: none"> <li>► quantify the usage of identified nesting beaches within the marine study area;</li> <li>► identify feeding ranges and utilisation patterns of marine turtles within the marine study area; and</li> <li>► identify migratory paths of marine turtles within the marine study area.</li> </ul> For further information, refer to <b>Sections 6, 10 and Appendix A1</b> .
	DEC Environmental Management Branch	The DEC considers all flatback turtle nesting locations in the Pilbara to be of high conservation significance. It is important that the proponent adequately recognises in the PER/Draft EIS the importance of Cemetery Beach, Pretty Pool and other local beaches in providing significant nesting habitat on the mainland for threatened marine turtles. Avoid or manage all sources of potential impacts on marine turtles through the design and location of port infrastructure in a way that is sensitive to marine turtles. Infrastructure that requires lighting (e.g. conveyor) should be appropriately designed and /or located in areas that are not visible from turtle nesting beaches. Offshore lighting needs to be appropriately designed and managed to minimise impacts on marine turtles.  Develop a Turtle Management Plan to manage and monitor remaining impacts to marine turtles.	Noise impacts associated with construction and operational activities is considered within <b>Sections 10 and 11</b> . Noise modelling has indicated dredging and piling activities will have minimal impact on sensitive receptors. ( <b>Appendices B8, B9 and B10</b> ) The community will be advised and a hotline will be established to inform and provide an opportunity for community comment for construction related activities.
Noise	DEC Environmental Management Branch	Investigate impacts of acoustic emissions associated with dredge activity, blasting and pile driving upon conservation significant marine species (e.g. cetaceans, turtles) at different stages of their life cycles (e.g. nesting, breeding, migration).	
	Karratha Regional Office of DEC	Water noise should be considered in the approvals submission.	

Themes	Stakeholder	Summary of Queries / Comments Raised	Mitigation Plan and Strategies
Water Use	Department of Water / DEC Environmental Management Branch / Water Corporation	<p>Provide a statement showing strategic consideration of how water supply for dust suppression will be delivered in the medium to long term.</p> <p>Provide contingency strategies for water supply should the preferred source option be unviable.</p> <p>Imperative that water requirements for the proposal be assessed.</p> <p>The PER/Draft EIS should include an options analysis of all water supply alternatives being considered in terms of environmental impacts over the long term.</p>	<p>Water usage is considered in <b>Section 2</b>.</p> <p>Operational water use and initiatives to improve water use efficiency will be considered in approvals documentation for establishment and modifications associated with port infrastructure.</p>
Dust	Department of Environment and Conservation, Pilbara (Industry Regulation) (DEC IR)	<p>DEC IR recommends that water consumption issues should be addressed in the PER/EIS to ensure water supplies are sustainable.</p>	<p>Dust and potential impacts are considered in <b>Sections 8 and 11</b>.</p> <p>BHP Billiton Iron Ore is committed to managing dust impacts with short, medium and long term perspectives taking into account discussions with all stakeholders and the outcomes of studies currently being undertaken by government. BHP Billiton Iron Ore also has existing programs to manage dust and associated impacts including the Clear Air Taskforce team and partnership with Town of Port Hedland Greening program for West End.</p>

Themes	Stakeholder	Summary of Queries / Comments Raised	Mitigation Plan and Strategies
Benthic Primary Producer Habitat (i.e. coral and mangrove communities)	DEC Environmental Management Branch  Karratha Regional Offices of DEC and DoW	<p>Evaluate cumulative impacts to BPPH (i.e. coral and mangrove communities).</p> <p>Direct and indirect impacts on BPPH need to be evaluated, particularly mangroves.</p>	<p>BHP Billiton Iron Ore has undertaken mapping and evaluation of potential impacts of the subtidal and intertidal BPPH communities offshore of Port Hedland. For further information please refer to <b>Section 6</b> and <b>10</b>.</p> <p>Direct and indirect impacts have been considered in <b>Section 10</b>.</p>
DEC Marine Ecosystems Branch	DEC Environmental Management Branch	<p>Cumulative impacts on mangroves need to be determined and the proposed management unit needs to be clearly defined.</p>	<p>Cumulative impacts have been considered in <b>Section 10</b>. A Mangrove Management Plan (<b>Appendix A2</b>), which includes mangrove management, has been developed and will be implemented.</p>
Port Hedland Community Consultative Group	DEC Environmental Management Branch	<p>Consider re-establishing mangroves where impact cannot be avoided.</p> <p>What is the impact on Weerde Island and do the studies consider this?</p>	<p>BHP Billiton Iron Ore has minimised the proposed disturbance to mangroves through engineering design, with no potential indirect impacts predicted.</p> <p>Direct and cumulative impacts have been considered in <b>Section 10</b>.</p>
DEC Marine Ecosystems Branch	PHPA	<p>Direct and indirect impacts on BPPH need to be evaluated, particularly mangroves.</p> <p>Commit to avoid, minimise and manage impacts to BPPH communities.</p> <p>Evaluate potential impacts on corals from dredging and spoil disposal.</p> <p>Establish BPPH thresholds and triggers.</p> <p>Assign appropriate impact management zones with associated predicted impacts.</p> <p>Develop an impact monitoring program with adequate trigger criteria and management responses.</p>	<p>Indirect and direct impacts on BPPH have been defined further in <b>Section 10</b>.</p> <p>Spoil Grounds and the location of the wharf facilities/dredge channel have been located to minimise direct impacts to BPPH communities. Water Quality Thresholds have been developed, the methodology is included in <b>Appendix B11</b>.</p> <p>A Dredging and Spoil Disposal Management Plan (<b>Appendix A3</b>) has been developed and incorporates an impact monitoring program.</p>
		<p>Need to demonstrate in submissions where consideration has been given to avoiding and/or minimising impact to mangrove communities.</p>	<p>The project footprint for landside infrastructure has been designed to ensure minimal loss of mangroves, specifically 'closed canopy' areas. For further information on mangroves refer to <b>Sections 6</b> and <b>10</b>.</p>
		<p>Environmental impacts over further removal of mangroves.</p> <p>Concerns over cumulative impacts and what is removed from Management Unit.</p>	<p>BHP Billiton Iron Ore has undertaken an assessment in mangrove loss and accretion within the Port Hedland Industrial Management Unit to quantify net loss of mangroves since 1963 (i.e. prior to major industrial development within the port area). BHP Billiton Iron Ore has minimised impact on mangrove habitat as part of the proposed Outer Harbour Development. For further information refer to <b>Section 10</b>.</p>

Themes	Stakeholder	Summary of Queries / Comments Raised	Mitigation Plan and Strategies
Marine Fauna, Marine Fauna Habitat Values	DEC Environmental Management Branch	Present baseline surveys, management and monitoring programs in the PER/Draft EIS.	Refer to <b>Sections 6 and 10</b> .
	DEC Environmental Management Branch	Investigate the usage of affected marine habitat and waters by significant marine fauna, such as whales, dugong and whale sharks. Develop management and monitoring measures to avoid impacts to significant marine fauna, such as whales, dugong and whale sharks.	Refer to <b>Sections 6 and 10</b> . Management and monitoring measures for marine mammals have been incorporated into the Marine Mammal Management Plan ( <b>Appendix A4</b> ).
Marine Environment – General	DEC Environmental Management Branch	Develop a dredging and spoil disposal (or potential reclamation) management plan. Provide a description of data to be collected during the dredging and spoil disposal program. It is important to validate the sediment plume model.	A Dredging and Spoil Disposal Management Plan has been included as <b>Appendix A3</b> . A recommended management measure in the Dredging and Spoil Disposal Management Plan is to undertake validation of the sediment plume model during the first six months of dredging activity.
Marine Sediments and Marine Water Quality	DEC Environmental Management Branch	Provide transparent detail on the appropriateness/suitability of spoil disposal grounds.	A Spoil Ground Site Selection study is provided as part of the Sea Dumping Permit Application ( <b>Appendix B12</b> ).
	DEC Contaminated Sites Branch	Sediments proposed for dredging should also be assessed for their acid generating potential.	As part of the Sea Dumping permit application, sediments with the potential to be acid generating were assessed. No sediments showed potential to be acid generating. ( <b>Appendix B12</b> ).
Monitoring	DEC Marine Ecosystems Branch	The Sampling and Analysis Plan should consider the NODGDM as well as the receiving environment and associated potential impacts (i.e. toxicity and/or bioavailability testing).	A Sediment Analysis Plan has been completed for sea dumping and demonstrates consideration of the NODGDM. The Sediment Analysis Plan will be provided as part of the Sea Dumping permit Application to the DSEWPaC.
Coastal Geomorphology	DEC Environmental Management Branch	Model changes in coastal hydrodynamics and investigate potential impacts to mangrove communities.	BHP Billiton Iron One has modelled potential impacts to coastal processes. These are discussed further in <b>Section 10</b> .
Marine Pests	DEC Environmental Management Branch	Develop a Marine Quarantine Management Plan which addresses both the construction and operational phases. Develop a Marine Pests Management Strategy.	An Invasive Marine Species Management Plan which includes marine quarantine management has been included in <b>Appendix A5</b> . Management of marine pests for operations is managed through the PPFA.

<b>Themes</b>	<b>Stakeholder</b>	<b>Summary of Queries / Comments Raised</b>	<b>Mitigation Plan and Strategies</b>
Artificial Lighting	DEC Environmental Management Branch	Conduct a detailed lighting impact assessment, which includes both cumulative light spill and glow.	Light modelling has been undertaken, and both terrestrial (social) and marine impacts assessed. Refer to <b>Sections 6, 7, 8, 10 and 11</b> . The light modelling report is included in <b>Appendix B5</b> .
	Care for Hedland Environmental Association Port Hedland Chamber of Commerce and Industry	What effects from lighting will there be to turtles and whales?	
Greenhouse Gas and Climate Change	DEC Environmental Management Branch	Discuss and consider impacts associated with future predicted sea level rises (in terms of the environment as well as the project infrastructure).	A Greenhouse Gas Assessment has been undertaken for the Outer Harbour Development. Refer to <b>Section 11</b> .

Themes	Stakeholder	Summary of Queries / Comments Raised	Mitigation Plan and Strategies
Terrestrial Flora and Fauna	DEC Environmental Management Branch	<p>Document the results of investigations into the condition of weed species.</p> <p>Conduct second round vegetation and flora surveys (immediately following the wet season). Describe any impacts on conservation significant species (if present) which may be present in the project area and mitigation measures to be implemented. Provide a Weed Management Program.</p> <p>Describe any impacts on subterranean fauna (if present) which may be present in the project area and mitigation measures to be implemented.</p>	<p>Flora and fauna surveys (including targeted searches for Priority Flora) have been undertaken for the project. The Outer Harbour Development will not compromise the local or regional representation of fauna habitats found within the Terrestrial Study Area.</p> <p>For further information refer to <b>Sections 5 and 9</b>. Management measures for terrestrial species have been incorporated into the Significant Terrestrial Species Management Plan (<b>Appendix A6</b>).</p> <p>Two flora/vegetation surveys were undertaken in Summer and Winter. In addition a targeted Priority Flora survey was undertaken following rainfall in March 2009. Potential impacts are considered in <b>Section 9</b>. Proposed management measures including weed management will be incorporated into the Construction Environmental Management Plan (CEMP).</p> <p>Subterranean fauna are considered in <b>Sections 5 and 9</b>.</p> <p>BHP Billiton Iron Ore is committed to progressively rehabilitating areas disturbed as part of the construction activities. BHP Billiton Iron Ore considers that the rehabilitation methods implemented for its Port Hedland Operations will provide the greatest opportunity for the establishment of self-sustaining native vegetation and include ensuring that stable non-erodible landforms are established; applying appropriate surface treatments to facilitate revegetation (i.e. resprouting of available topsoil and vegetative matter); and ripping/scarification of compacted surfaces. Application of topsoil recovered during clearing activities will also serve to revegetate species from the local provenance.</p>
Terrestrial Environment –General	DEC Environmental Management Branch	<p>The DEC is of the view that in general, all seed and other plant material used in rehabilitation of natural areas should be of local provenance.</p>	<p>Refer <b>Section 5 and 9</b>. Where practicable, the proposed infrastructure has been located in existing disturbed areas, and incorporates previously disturbed footprints.</p>
		<p>Provide justification for the extensive area to be disturbed. This information should be accompanied by proposed measures to avoid, minimise and manage clearing and terrestrial disturbance.</p>	

<b>Themes</b>	<b>Stakeholder</b>	<b>Summary of Queries / Comments Raised</b>	<b>Mitigation Plan and Strategies</b>
Surface Water Regimes	DEC Environmental Management Branch	Investigate surface water regimes and assess the impacts to drainage (and subsequently to vegetation and mangroves) and the potential for inundation of the site during cyclones, storm surges and heavy rains.	Storm surge and surface water modelling on current design have been undertaken. Refer to <b>Sections 5 and 9</b> .
	DEC Environmental Management Branch	Present options to avoid/manage potential impacts due to altered surface water regimes, and inundation should be presented.	Potential impacts to surface water are considered in <b>Section 9</b> . Proposed management measures will be incorporated into the Construction Environmental Management Plan.
Groundwater Regimes	DEC Contaminated Sites Branch	Design a Groundwater Management Plan.	Potential impacts to groundwater are considered in <b>Section 9</b> . Proposed management measures will be incorporated into the CEMP.
Contaminated Land	DEC Contaminated Sites Branch	Recommend that the proponent undertakes at least a Preliminary Site Investigation to confirm the land use history of the area.	A Preliminary Site Investigation has been completed. Refer to <b>Section 5</b> for further information on the existing terrestrial environment.
Acid Sulphate Soils	DEC Contaminated Sites Branch	<p>Make a clear statement as to whether construction of raised roads and causeways across tidal flats has the potential to cause the oxidation of acid sulphate soils behind the obstruction along with the potential release of metals and nutrients into the environment.</p> <p>Provide a binding commitment to undertake soil and/or groundwater remediation works, if required, following the cessation of the operational life of the facility and/or prior to the decommissioning of individual structures.</p>	Refer <b>Sections 5 and 9</b> . Management measures have been incorporated in the Acid Sulphate Soils Management Plan ( <b>Appendix A7</b> ). Refer to BHP Billiton Iron Ore Closure Plan (Ref?).
General Environmental Management	DEC Environmental Management Branch	Outline potential impacts/ investigations/ measures for construction and operations phases. All studies should be completed prior to the release of the PER/EIS. Estimate residual impacts to high value and critical assets and provide estimations of direct and indirect impact footprints.	BHP Billiton Iron Ore has undertaken studies as scoped in the ESD. The results of the studies have been included in the PER/ Draft EIS.
	Port Hedland Chamber of Commerce and Industry	Specify the construction timing and likely duration of each project component. Factor downtime resulting from unforeseen circumstances (i.e. cyclone activity) into the schedule.	Refer to <b>Section 2</b> . Modeling has allowed for seasonal variability in conditions.
		How will odour and sulphur dioxide be managed? What fill material is required for the stockyards?	Bulk handling of iron ore will not produce odour or emit sulphur dioxide ( $\text{SO}_2$ ). Small emissions will however occur from the combustion of fuel in locomotives, heavy vehicles and the power station. As BHP Billiton Iron Ore improves energy efficiency, equivalent efficiencies will be achieved in $\text{SO}_2$ emissions. Fill will be obtained from borrow areas identified for the project.

<b>Themes</b>	<b>Stakeholder</b>	<b>Summary of Queries / Comments Raised</b>	<b>Mitigation Plan and Strategies</b>
Heritage	DIA – Priority Projects Unit	Need to understand if there are any indirect impacts on sites of heritage significance and what management measures are to be taken to minimise these impacts.	Eighteen sites listed on the DIA permanent register are recorded as being potentially located within the terrestrial disturbance envelope. ( <a href="#">Section 7</a> ). A Cultural Heritage Management Plan for port operations and growth has been developed in consultation with the Kariyarrra Group.
	Kariyarrra Group	Will Kariyarrra be requested to observe the dredging as it occurs?	Searches of the relevant heritage databases have been undertaken, including a search for shipwrecks. For further information, refer to <a href="#">Section 7</a> .
	Care for Hedland	Has heritage been considered as part of the proposed dredging activities?	BHP Billiton Iron Ore has completed a Social Impact Assessment (SIA) for the proposed Outer Harbour Development. Mitigation strategies are being planned for implementation during the growth phases. Workforce modelling has been completed and accommodation requirements forecasted. Information included in presentations to stakeholders in November/December 2008 and March 2009. For further information refer to <a href="#">Section 11</a> .
Social Modelling	Town of Port Hedland (Special Meeting – Councillors and Administration)	Request for any social modelling data. Policy on fly in-fly out versus residential?	
	Port Hedland Chamber of Commerce and Industry	Request for workforce data and potential impacts on services, facilities and infrastructure. Will there be constraints in finding workforce with other industry growth (e.g. the Gorgon Project) occurring?	
	Port Hedland Community Consultative Group	Request for workforce modelling data. How will the town cope with influx of people due to growth? Would require more police staff. Need to make State Government aware of this constraint. Small business should be supported as future growth in the region will impact them (land availability, commercial space).	
	Town of Port Hedland Mayor and CEO	The State Government should be aware that this level of growth is coming. The town is already at full capacity in terms of housing and public services. Request for a Pilbara wide collaborative Social Impact Assessment to consider all regional growth with input from all industry players.	
	Town of Port Hedland Council	Workforce modelling.	
Services – Community Investment	Pilbara Development Commission – Growth Forum	What is the investment into community and any potential strain on government services? The town is already at full capacity with its services. The Government should know about this potential growth as cumulative growth impacts will need to be managed.	BHP Billiton Iron Ore is contributing to and supporting the creation of a "vision" for the Pilbara. Work is being led by the Pilbara Development Commission. BHP Billiton Iron Ore has an extensive existing community investment program that includes significant investment to delivery of services in the region (health, education, police, childcare, indigenous etc). For further information refer to <a href="#">Section 11</a> .
Mosquitoes	Town of Port Hedland Staff	Need to ensure drainage is managed to avoid mosquito breeding.	Measures to manage any potential for increase in mosquito breeding areas and mosquito borne disease are discussed in <a href="#">Section 11</a> .

<b>Themes</b>	<b>Stakeholder</b>	<b>Summary of Queries / Comments Raised</b>	<b>Mitigation Plan and Strategies</b>
Access for Recreation	PHPA	Long-term plans for public access to the harbour need consideration.	Community consultation is ongoing to seek input from relevant stakeholders.
	Care for Hedland Environmental Association	Will there be access under the jetty for diving?	
Planning	Town of Port Hedland, PHPA, DPI	Disruption to access to the recreation areas on the west end of Finucane Island, including boat ramp and beaches.	BHP Billiton Iron Ore will maintain access to the west end of Finucane Island. During construction a Traffic Management Procedure will be implemented and the community notified of potential delays, or times of limited or no access.
	PHPA, Town of Port Hedland, DRD, DPI	To ensure the project does not eliminate the possibility of South West Creek berths from Boodarie Stockyard areas at the proposed Boodarie Industrial Estate (i.e. access to Inner Harbour).	BHP Billiton Iron Ore has worked with the PHPA and Town of Port Hedland to allow access over BHP Billiton Iron Ore's conveyors (i.e. build up and over).
	PHPA, MRWA, DRD, LandCorp, DPI	Concerns that the proposed Outer Harbour Development infrastructure may be a barrier for future development within the Boodarie Industrial Estate.	BHP Billiton Iron Ore has worked with the PHPA and DSD to site the infrastructure corridors.
	MRWA, Town of Port Hedland	Concern over increased rail traffic at grade rail crossing on the Great Northern Highway and potential future delays at rail crossings.	BHP Billiton Iron Ore has funded the construction of an overpass at Wallwork Road which will remove traffic delays.
Public Health	Department of Health (DoH)	Provide information on the possible range of health impacts and means of addressing them using DoH framework ( <i>Public health consultation: A guide for developer(s)</i> ).	Potential health impacts have been addressed in <b>Section 11</b> . There is no operational evidence to indicate iron ore dust has long term health effects.