

Impact of the Proposed Kimberley LNG Precinct on Customary Fishing in the Vicinity of James Price Point

Prepared for the Department of Fisheries Guy Wright 2010



Government of **Western Australia**
Department of **Fisheries**

Department of Fisheries
3rd floor SGIO Atrium
168-170 St George's Terrace
PERTH WA 6000
Telephone: (08) 9482 7333
Facsimile: (08) 9482 7389
Website: www.fish.wa.gov.au
ABN: 55 689 794 771

Published by Department of Fisheries, Perth, Western Australia.
Fisheries Occasional Publication No. 93, April 2011.
ISSN: 1447 - 2058 ISBN: 978-1-921845-14-7

Impact of the Proposed Kimberley LNG Precinct on Customary Fishing in the Vicinity of James Price Point



Prepared for the Department of Fisheries
Guy Wright 2010



Big Island Research Pty Ltd

PO Box 490

Fremantle WA 6959

www.birpl.com.au

p: (+61) 08 9335 3733

f: 9335 9419

m: 0417 941 909

e: guywright@inet.net.au

Cover Photo: Spearing for stingray – James Price Point.

Photograph by author

Disclaimer: It should be noted that the views identified in this document regarding possible impacts and suggested mitigation and management arrangements are those expressed by organisations and individuals who participated in the study and do not necessarily reflect the views of government. Big Island Research Pty Ltd is not responsible for omissions and inconsistencies that may result from information not available at the time this report was prepared.

EXECUTIVE SUMMARY

Walmadany – James Price Point – has been a significant camping and fishing area for Aboriginal people for at least 1,300 years, and probably much longer (Smith 1997:46). It continues to be used, together with nearby sections of coastline, by local customary fishers based mainly in Broome. This study of Aboriginal customary fishing documents the current use of *Walmadany*, and the coastal area between Quondong and Manari as part of a more broadly based Fishing Industry Impact Study (FIS) (Wright and Pyke 2009). The study is based on interviews with known customary fishery stakeholders in this area and is a reflection of the information and opinions they provided. The study is not intended to be a reflection of the views of either the Department of Fisheries, or the Department of State Development, which commissioned the study.

The proposed construction of a liquefied natural gas (LNG) precinct near James Price Point (JPP), about 60 kilometres north of Broome is likely to impact on all fisheries sectors, including the customary sector. The Fishing Industry Impact Study (FIS) provides baseline information on issues and trends in the recreational, charter, and commercial fisheries, pearling and aquaculture that may be affected by the development of the precinct. This study of the customary sector forms an addendum to the larger study and may be read in conjunction with it, although for most practical purposes it may also be read as a discrete report. The FIS forms part of a social impact study (SIA) that considers a set of potential scenarios for low, medium, and high levels of LNG processing activity at the precinct.

The precinct is required in order to make use of the significant gas reserves off the north Kimberley coast, especially in the Browse Basin. The gas will be piped from the basin to the precinct, where it will be cooled until it is liquefied, and then piped to LNG tankers for distribution. The Western Australian State Government's Northern Development Taskforce identified a range of possible sites for an LNG precinct before narrowing the choice to James Price Point (JPP) on technical and environmental feasibility grounds. The area proposed for the precinct includes about 2,500 hectares of land and about 1,000 hectares of water, located just to the south of JPP. The space required, and the extent of the wharfing and associated marine infrastructure will depend on the number of gas "trains" that are eventually built at the site.

This study of customary fishing around JPP is based on 10 days of fieldwork undertaken in December 2009, based in Broome. The Kimberley Land Council (KLC) was instrumental in assisting the research

by putting the author in touch with relevant native title claimants and others. KLC staff were particularly helpful in lining up appropriate traditional owners who are known to regularly fish on the southwest coast of the Dampier Peninsula north of Broome. Two days were spent fishing with Goolarabooloo-Jabbir Jabbir and Bardi Traditional Owners on the coast between Barred Creek and just north of Manari. Other interviews, with Yawuru Traditional Owners who were nominated by KLC and other interviewees as keen customary fishers, were held in Broome.

Unfortunately Cyclone Laurence visited the West Kimberley during the fieldwork and had a limiting effect on the fieldwork. It meant that communities in the northern portions of the Dampier Peninsula, such as Beagle Bay, Lombadina, and One Arm Point, could not be accessed.

Key findings

The key finding of the Customary Fishing Impact Study (CFIS) may be summarised as follows:

- Aboriginal people with customary fishing interests that may be affected by the proposed JPP LNG precinct are concerned that the development of the precinct will affect their catch of fish and other marine fauna. Some accept that the potential reduction in the ability to catch fish and marine fauna in this area is an unfortunate but necessary trade-off for better overall economic prospects that may come as a result of the proposed JPP LNG precinct's development. Others do not accept that an LNG facility should be constructed near James Price Point regardless of the benefits that may be expected.

Environmental issues

JPP is considered to have a reef system that is superior to most of the other reefs in the area. It is larger and more complex than the nearby reefs at Quondong to the south or Manari to the north. Customary fishers considered that the fishing was better there than at Manari, and JPP has the advantage that fishing can be done directly from the rocks and the reef without the need for a dinghy to reach good fishing places. It is also a favoured snorkeling place, and some customary fishers specialise in fishing the JPP reefs with snorkel and speargun.

A substantial range of fish are taken from the waters adjacent JPP (see below) but the most commonly sought and highly valued appears to be Maori seaperch (*Lutjanus rivulatus*) – known to Aboriginal people as “Gidit.” Stingray is also a favoured species when in season, as is Spanish flag. Many green and some

flatback turtles are known to use the area and are regularly taken by Traditional Owners and other historical people. Dugong appear to travel up the coast past JPP and are taken when conditions are appropriate.

Most of the customary fishers that were interviewed thought that the proposed JPP LNG precinct would have a substantial effect on their local fishing immediately adjacent JPP, especially during the construction phase. They were also very concerned about the implications of the dredging and underwater disturbances over a wider area. But they acknowledged that without detailed information about the extent of the dredging and the potential need for regular maintenance dredging it was difficult to assess the ultimate impact of the dredging. However, the concern that was uppermost in most of their minds appeared to be the danger that increased international vessel traffic would enhance the likelihood that marine pests and disease would be introduced. These may cause long term systemic damage to the eco-system.

Resource Sharing

Resource sharing issues were raised primarily in the context of increasing population pressures on Broome. Broome has been growing rapidly for many years and is predicted to continue to do so in future. The result is that coastal fish resources are more prone to exploitation by non-Indigenous Broome locals and tourists. Aboriginal people interviewed lamented the perceived reduction in the catchability of popular species of fish and mudcrab. Although the overall SIA has indicated that the permanent population impacts on the region that are a direct result of the JPP LNG Precinct will be comparatively small, the opinion of most Traditional Owners is that the Precinct will bring significant further growth to Broome. In their view, this will have a deleterious cumulative effect on local fishing around Broome, including customary fishing.

The large workforce required for the construction phase of the individual projects is a discrete fishery issue. Such a large workforce, probably living in a camp near JPP, will need to be refused the capacity to fish in local waters near JPP as a recreational pursuit. This issue was also raised by the recreational sector and is reported in the FIS.

In addition to the commonsense need to protect fish stocks in the region that will be affected, Traditional Owners of this country should expect government to help protect their native title rights. Although yet to be determined, it is virtually certain that native title rights in this coastal area will extend into the sea and include the right to fish for species that have been taken since time immemorial. In

similar jurisdictions such as Canada, the USA, and New Zealand, where Indigenous rights to fish place an onus on government to protect these rights, arrangements are often made that lead to effective co-management that is helpful to all sectors that are interested in healthy fisheries.¹

Customary fishers strongly supported management arrangements for the coastal zone. Management arrangements would provide some restrictions in what is now open access to the southern coastal regions of the Dampier Peninsula. Traditional Owners would be a part of any discussions regarding management arrangements.

Economic aspects

No formal economic study was done of the customary fishing sector; but some anecdotal information was collected. This information points to the importance of the customary sector in alleviating the need to access store-bought meat and fish. Essentially, an informal system of reciprocity exists where fish, crab, shellfish, turtle, dugong, and terrestrial resources such as kangaroo, are disseminated within the Aboriginal community. The system relies on inputs from active hunters and fishers. Family, friends and “countrymen” share the take through an informal web of relationships. Although it is difficult to determine the quantities that are exchanged with so short a period of fieldwork, some estimation of the significance of this system can be made. Almost all of the people interviewed commented on the exchange. Some jokingly referred to it as “freezer fishing” – meaning that they took a meal of fish or other meat from either their own or another’s freezer – with permission. Others casually mentioned they had a meal of “*givilil*” Green turtle (*Chelonia mydas*) the night before. One customary fisher gave the matter some thought and realized that he had had only one meal in the previous week where the meat had been purchased from a store.

Customary management

Customary fishers are quick to point out that they manage their marine resources in a way that helps ensure sustainability. They recognise and respect six seasons and fish for particular species only during the appropriate seasons for them – usually when the fish and other marine animals are in their prime condition and “fat.” They say that they catch only as much as they can reasonably use, and that they don’t waste any part of the animals. Although customary fishers do not appear to understand much of

¹ See, e.g. Dave Moore, “The Aboriginal fisheries experience in Canada,” and Guy Wright “Aboriginal fishing rights in practice - Australia and Canada” both in Paul Kauffman (ed.) *Water and fishing : Aboriginal rights in Australia and Canada*, 2004, Aboriginal and Torres Strait Islander Commission, 2004

the detail of recreational fishing rules, they do apply their own conservation measures, for example by not taking female mud crabs, not taking fish that are too small or large for their purpose, and recognising that fish and marine fauna should be taken only during the appropriate season. It is beyond the scope of this document to comment on such matters, but it is known that there are religious aspects in the local culture that are relevant to the customary framework that regulates the take of fish and marine fauna.

Table 1: Key issues raised by customary fishers and suggested mitigation strategies

Issue raised	Potential Impact/ Benefit	Project Phase	Risk/Need Factor	Potential Mitigation Strategies/ Opportunities	Responsibility/Key Drivers
"It's just too big."	The scale of the precinct is bigger than any other West Kimberley industrial project and this is unsettling to Traditional Owners who are used to low-scale developments. They fear they will lose their feeling for the place and will not want to go there anymore.	Construction /Operation	High	The planning of the sites for the gas trains immediately behind the coastal dunes is helpful in providing at least a small buffer strip of country between much of the sea-front and the land-based industrial site.	DSD Planners Proponents
Local overfishing during construction phase	Local depletion of fish due to recreational overfishing by construction workers.	Construction	Critical	Traditional owners have a right to expect that disruption to fish stocks is minimised, and their ability to recuperate following construction is maximised. The proponent should ensure that firm management arrangements are in place to limit the effects of workers fishing recreationally during the construction phase.	Proponent with support from Department of Fisheries

Increasing pressure on local fish resources.	Substantial cumulative effects on already depleted coastal fish resources resulting from increased population.	Construction and Operation	Critical for possible uncontrolled access during construction; medium in terms of long-term growth of Broome	Integrated coastal and marine planning processes should consider increases in future use of fish resources in areas surrounding Broome and on the west side of the Dampier Peninsula.	Departments of: <ul style="list-style-type: none"> • Planning • Environment and Conservation • Fisheries Kimberley Land Council Recfishwest Western Australian Fishing Industry Council
Access to areas surrounding the JPP LNG Precinct, and coastal areas to the north enhanced.	The LNG plant will alter current arrangements to access JPP and coastal areas to the north. Public access may be easier, with increased pressure on coastal resources.	Construction & Operation	Critical	Integrated coastal and marine planning processes should be developed to manage altered arrangements for public access. The rights and interests of Traditional Owners should feature prominently in these discussions. It may be possible to control access but this needs to be discussed with all parties that may be affected.	Departments of: <ul style="list-style-type: none"> • Planning • Environment and Conservation • Fisheries Kimberley Land Council Recfishwest
Concern that increased international marine traffic will increase the likelihood of exotic pests and disease being introduced	Traditional Owners are worried about the introduction of marine pests and disease.	Operation	Critical	Specific relevant regulations relating to biofoul inspections should be reviewed and enhanced, if possible, to achieve highest possible levels of protection. Traditional Owners were of the view that biofoul inspections (Quarantine Pre-arrival Report) should be conducted by licenced Australian inspectors as a condition of entry to Australian waters. Monitoring of potential for introduced	Proponent Australian Quarantine Inspection Service (AQIS) Department of Agriculture Fisheries and Forestry (DAFF) Department of Fisheries

<p>Need for failsafe design of wharf to protect environment</p>	<p>Proposal that the wharf and marine facilities be designed so that any spills or accidents are automatically contained</p>	<p>Construction and Operation</p>	<p>Medium</p>	<p>Traditional owners suggested that some form of skirting or other built-in feature might be designed into the wharfs to ensure that possible spills of oil and other contaminants do not enter the sea.</p>	<p>Proponent</p>
<p>Green and flatback turtles affected by noise and light.</p>	<p>Although not a major nesting area like the nearby Lacepede Islands, local turtle egg laying habits may be disturbed.</p>	<p>Construction and Operation</p>	<p>Medium</p>	<p>Technical lessons will have been learned about this issue from Barrow Island and elsewhere. Traditional Owners insist on the best possible mitigation measures. Although JPP is not known as a major turtle nesting place, Traditional Owners' experience is that turtles do nest there – possibly opportunistically.</p>	<p>Dept. of Environment and Conservation</p>
<p>Need to go further and further afield to find relatively untouched marine environment</p>	<p>The proposed JPP LNG project may contribute somewhat to the substantial natural population growth projected for Broome and have cumulative effects on natural resources</p>	<p>Construction and Operation</p>	<p>Medium</p>	<p>It is inevitable that further development of Broome will create increasing demands on local marine resources. The SIA points out that the JPP LNG precinct will contribute a small amount to the overall population growth of Broome.</p>	<p>Department of Environment and Conservation</p>

<p>surrounding Broome.</p>	<p>Traditional Owners want to discuss and negotiate with other stakeholder groups about appropriate use of coastal and marine environments.</p>	<p>Construction and Operation</p>	<p>High</p>	<p>Traditional Owners should be supported and assisted to enter discussions with recreational and commercial fishers, pearlivers, aquaculturalists, conservationists, oil and gas operators, and others. Appropriate management arrangements should be negotiated between these groups in the Kimberley, where finite coastal resources are being allocated.</p>	<p>All relevant stakeholders plus government</p>
<p>Need for integrated planning – management, and rangers</p>	<p>Traditional Owners want to discuss and negotiate with other stakeholder groups about appropriate use of coastal and marine environments.</p>	<p>Construction and operation</p>	<p>High</p>	<p>Most customary fishers will welcome more active management from DoF. Training of Aboriginal rangers may be helpful, but there should be long-term support of individuals. Programs should be integrated across relevant agencies.</p>	<p>DoF DEC Proponent</p>
<p>There is insufficient policing of existing fisheries rules.</p>	<p>DoF is currently unable to provide appropriate policing of recreational fishing in the Pilbara and Kimberley region. The precinct may exacerbate this problem.</p>	<p>Construction and operation</p>	<p>High</p>	<p>Most customary fishers will welcome more active management from DoF. Training of Aboriginal rangers may be helpful, but there should be long-term support of individuals. Programs should be integrated across relevant agencies.</p>	<p>DoF DEC Proponent</p>

CONTENTS

EXECUTIVE SUMMARY.....	III
Key findings	iv
Environmental issues	iv
Resource Sharing	v
Economic aspects.....	vi
Customary management.....	vi
Acknowledgements	3
INTRODUCTION	5
What is Customary Fishing?	6
METHODOLOGY	7
Engagement with representational agencies	7
INTERVIEWS AND FIELDWORK.....	8
BACKGROUND	11
CUSTOMARY FISHING AROUND BROOME	13
Overview	13
National Recreational and Indigenous Fishing Survey.....	13
Culture, Food, Flavour, and Fun	15
Culture.....	16
Food	16
Flavour.....	18
Fun	18
Species caught	19

FISHING AT WALMADANY	21
A hot spot for <i>Gidit</i>	21
Bait balls	21
Camping.....	21
Will use of Walmadany continue?	22
 ISSUES RAISED BY CUSTOMARY FISHERS	 28
“It’s just too big”	28
Local overfishing during construction phase	28
Increasing pressure from growth of Broome.....	31
Maritime hygiene	33
Potential pollution and silting.....	34
Indigenous Rangers Needed	34
Access north of JPP may be enhanced	35
 THE NEED FOR INTEGRATED PLANNING	 36
 CONCLUSIONS.....	 38
References.....	40

FIGURES

Figure 1. Coastal area north of Broome	9
Figure 2. Plan of precinct similar to that shown to interviewees	10
Figure 3. The Walmadany fishtrap with JPP in background.....	12
Figure 4. Proportion of annual fishing effort (events), by platform (boat/shore)... (Henry and Lyle 2003:116).	14
Figure 5. Proportion of annual fishing effort (events), by method and region for indigenous fishers living in communities in northern Australia (Henry and Lyle 2003:116).....	14
Figure 6. Casting for bait near Manari.....	15
Photo by author.....	15
Figure 7. Representation of seasonal coastal activities with reference to Bardi people of the northern Dampier Peninsula (Smith 1997:7)	20
Figure 8. Top line assumes population growth with JPP LNG in operation. Source: Social Impact Assessment - Scoping Document - Volume One	31

Acknowledgements

I would like to thank the following people for providing valuable assistance to the study:

- Eve Bunbury – Department of Fisheries
- Alana Herbert – Department of State Development
- Victoria Jackson – Department of State Development
- Andrea Jardine – Orr – Department of State Development
- Damien Parriman – Kimberley Land Council
- Gary Simmons – Department of State Development
- Anonymous reviewers

Acronyms and Definitions

DoF	Department of Fisheries
FAD	Fish Aggregating Devices
FIS	Fisheries Impact Study
G-JJ	Goorlarabooloo – Jabirr Jabirr Native Title Claim Group members
IMO	International Maritime Organisation
JPP LNG Precinct	Liquefied Natural Gas facility proposed for James Price Point
KLC	Kimberley Land Council
MPA	Marine Protected Areas
Recfishwest	Western Australian Recreational and Sportfishing Council Inc
SIA	Social Impact Assessment
SFR	State of the Fisheries Report 2007/08
TAC	Total Allowable Catch
Traditional Owners	All Aboriginal people who were interviewed irrespective of native title affiliation
WAFIC	Western Australian Fishing Industry Council

INTRODUCTION

This Customary Fishing Impact Study (CFIS) has been prepared as part of the Social Impact Assessment (SIA) being undertaken by the Western Australian Department of State Development in order to identify and manage the local impacts of the Kimberley LNG Precinct that is proposed to be located near to James Price Point, about 60 kilometres north of Broome.

The precinct is required in order to make use of the significant gas reserves off the north Kimberley coast, especially in the Browse Basin. The gas will be piped from the basin to the precinct, where it will be cooled until it is liquefied, and then piped to LNG tankers for distribution. The Western Australian State Government's Northern Development Taskforce identified a range of possible sites for an LNG precinct before narrowing the choice to James Price Point (JPP) on technical and environmental feasibility grounds. The area proposed for the precinct includes about 2,500 hectares of land and about 1,000 hectares of water, located just to the south of JPP. The space required, and the extent of the wharfing and associated marine infrastructure will depend on the number of gas "trains" that are eventually built at the site.

This study of customary fishing sits with a wider study of recreational, charter and commercial fishing, pearling and aquaculture that could be affected by the proposed James Price Point Liquefied Natural Gas precinct (JPP LNG) entitled "Fishing Industry Impact Study" (FIS) (Wright and Pyke 2009). Both are designed to inform the SIA that has been undertaken in accordance with the Strategic Assessment Agreement between the State of Western Australia and the Government of Australia. The SIA considers a set of potential scenarios for low, medium, and high levels of LNG processing activity at the precinct.

Two complementary impact studies have also been commissioned, an:

- Aboriginal Social Impact Study, conducted by the Kimberley Land Council (KLC); and a
- Tourism Impact Assessment Study conducted by KPP Business Development.

The proposed JPP LNG precinct will be the largest scale industrial development in the West Kimberley region. It will occupy a significant area of the coastal region north of Broome and it will have obvious direct physical effects on the area that it occupies. It may also have other

physical effects on wider areas of ocean, depending on matters of engineering and oceanography; but the detailed studies of these aspects are not yet available. It will have social effects, which are considered in the SIA. The purpose of this study is to determine and document the scale and extent of these impacts on customary fishing, to identify issues that need to be managed, and to highlight opportunities that can be harnessed for the betterment of customary fishing.²

The scale and extent of impacts, and the concerns and expectations about the effect of the proposed development on the interests of recreational and commercial fishers are discussed in the FIS. The proposed JPP LNG precinct is likely to impact on all fisheries sectors, including the customary sector. This CFIS deals with scale and extent of impacts, and the concerns and expectations, of the customary sector. It forms an addendum to the larger study and may be read in conjunction with it, although for most practical purposes it may also be read as a discrete report.

What is Customary Fishing?

On 23 December 2009 the Chief Executive Officer of the Department of Fisheries (DoF) issued a statement in which he recognised customary fishing and outlined how fishing in the customary sector would be managed (see Appendix One for the full statement). The statement said, in part:

“Customary fishing provides for the personal, domestic, educational, ceremonial and other non-commercial purposes of Western Australia’s Aboriginal people, who have maintained their tradition, customs and connection with land and waters” (DoF CEO Stuart Smith).

Although there is room for interpretation, on the face of it this statement establishes that the DoF recognises that Aboriginal people who have ongoing local connections with the area they are fishing in are engaging in customary fishing, if the fishing is being done for the purposes specified in the statement.

² Specification / Statement of Requirements: Fishing Industry Impact Study – Customary Fishing –Kimberley LNG Project.

This general recognition applies to all possible customary fishing in Western Australia; it is policy, not law. Although the broader context within which the statement is based contains strong elements of native title law, which are acknowledged in the full statement – provided below as Appendix One - there is no need to consider whether the fishing practices described in this report constitute practices relevant to native title. They easily fit within the general policy statement that recognises customary fishing. In the absence of legislated recognition and definition of customary fishing, the statement by the DoF CEO forms a useful working definition of customary fishing that may be adopted as an interim measure in reports such as this one.

It may be important for some readers to understand that most policy-makers do not limit what they consider to be customary fishing to the use of “traditional” methods. Modern equipment, including boats with engines, is commonly used by customary fishers as are more obviously traditional items such as surface spears and boomerangs.

METHODOLOGY

The native title claimants for the area that contains the proposed JPP LNG precinct are the Goolarabooloo-Jabirr Jabirr Peoples (G-JJ) (National Native Title Tribunal file no. WC99/36). The Kimberley Land Council (KLC) represents this group in respect of its native title claim.

Engagement with representational agencies

The timing of the fieldwork for this customary fishing study needed to be sensitive to the negotiations taking place between the groups that would be potentially affected by the proposed JPP LNG Precinct, and ongoing native title negotiations, with the Government of Western Australia. The KLC, representing the traditional owners in these negotiations, agreed that Traditional Owner participation in the study was appropriate so long as the research did not stray into areas that could be construed as endorsing or describing a view of what may or may not constitute customary fishing practices.

For this reason, it is important to state that the only definition of “customary fishing” relevant to this study is the quite general statement, provided by the CEO of the Department of Fisheries, and quoted above. The statement applies to all customary fishing in WA and is sufficient to cover the aspects of customary fishing relevant to the study.

INTERVIEWS AND FIELDWORK

Engagement with the customary fishers was greatly assisted by the then Coordinator of Environmental and Heritage Studies with the KLC. Following discussion and e-mail, he introduced the concept of a precinct with related projects at a meeting of the G-JJ native title claim group, and was briefed by KLC lawyers about the expected limitations of the brief, outlined above. He then made contacts within the G-JJ community and organised for people who are known to be regular fishers to meet with the author at the KLC's offices in Broome.

Ten G-JJ men met at the KLC offices. They were given a verbal explanation of the proposed JPP LNG precinct and its potential development and were invited to comment on how they thought it might have effects on their fishing practices. Most of these men were cognizant of the proposals for JPP, because they had been involved in other negotiations about it. They were asked to focus as much as possible on their fishing activities

and to talk about the possible impacts on fishing rather than on the more global view about whether their community should be supportive of the development of the precinct.

Brainstorming techniques were employed, in which the group was asked to provide description about how their fishing was conducted, and to consider the possible impacts to their fishing



Figure 1. Coastal area north of Broome

practices of the development of the JPP LNG precinct. Ideas were captured on a whiteboard, and discussed in terms of:

1. Type of fishing – or species targeted,
2. Possible impacts, and
3. Issues that arise from the impacts.

Following discussions in the morning, the group drove out to Barred Creek in order to demonstrate their fishing activities during the afternoon. The group caught about six mud crabs and made unsuccessful attempts to catch stingray and other fish by spearing and netting. The following morning the group drove to James Price Point and Manari and fished at a range of locations, including at JPP, described the process of customary fishing, and the potential impacts that may result from construction of the precinct south of JPP. The group then returned to the KLC offices for a debriefing session and further discussion about the potential outcomes for

their fishing activities if the JPP LNG precinct is developed. The discussions were aided by large-scale aerial photographs of the JPP area superimposed with an image of a hypothetical plan for the LNG

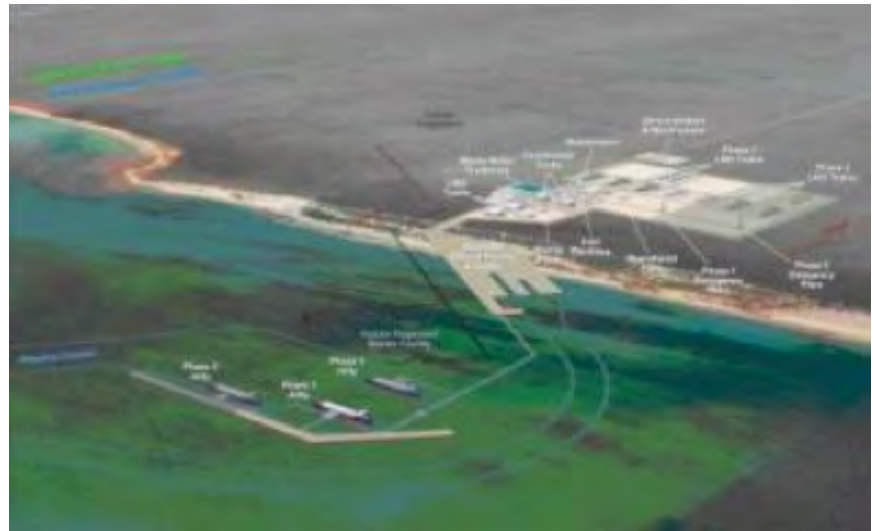


Figure 2. Plan of precinct similar to that shown to interviewees
precinct.

Following the meetings with the G-JJ men, KLC staff helpfully provided the names and addresses of other Aboriginal people known to be active fishers and who were thought likely to use the coastal area around James Price Point. Discussions with these people took place in their homes, at the beach, and in coffee shops in town. These people were asked to recommend other people to speak with, and so on. Unfortunately, Cyclone Laurence passed near Broome during the fieldwork and the stormy weather appeared to have a limiting effect on the numbers of people

who were able to provide time to the research. It was necessary to be persistent and flexible in arranging times for interviews.

During each interview copies of the large-scale aerial photographs with the JPP LNG precinct plan hypothetically superimposed on them were presented and discussed. The dimensions of the precinct and relevant features such as the harbour, dredged channel, and wharf were explained with the help of the plan. Each interviewee was asked to consider how the project would affect his use and enjoyment of the coastal area for the purpose of customary fishing. These discussions took a similar form as the group discussions with the G-JJ. People were asked about their fishing practices, the potential for impact on these practices if the JPP LNG precinct were to be constructed, and the issues/potential mitigation factors that could arise as a result. Discussions were open-ended and conversational and typically lasted between about one and one and a half hours.

In total, 16 customary fishers were interviewed. Ten people formed the G-JJ group and six individual interviews were held. It is known that there are others who are reasonably regular fishers in the JPP area. However, the cyclonic weather hindered the capacity to reach many people.

BACKGROUND

The fish trap at *Walmadany* is testament to the longstanding significance that the reefs near James Price Point have for customary fishers. Fish would be trapped by the stone arrangement on the ebb tides which made it easier for people to catch them. The area provided a wealth of produce from the land and the sea, which made it a significant camping place in both traditional and modern times.

A preliminary archaeological study associated with the proposed development of the James Price Point Liquefied Natural Gas Precinct (JPP LNG) had not yet reported in early 2010. However, it is known from previous work that Aboriginal people in pre-European Australia made extensive use of the James Price Point area. According to archaeologist, and Western Australian Museum Curator of Anthropology, Moya Smith:

“An extensive archaeological site, and a camping site of ongoing significance to local people has been recorded here [adjacent James Price Point]. This place is also of local importance as a resource area and water source. Artefacts and shell erode from the red dunes, and a radiocarbon date derived from a shell sample indicates that occupation here includes people's presence some 1,300 years ago (see Table 1) as well as in the more recent past as reflected by artefacts of glass” (Smith 1997:46).

In the late 1980s the Lurujarri Heritage Trail was established to highlight Aboriginal heritage values adjacent the coast of the southwestern Dampier Peninsula from Broome to north of Manari. As part of the planning for this trail a heritage study was conducted by the Department of Aboriginal Sites of the WA



Figure 3. The Walmadany fishtrap with JPP in background

Museum. It reported a site called Walmadany at James Price Point as of “Major archaeological and ethnographic significance, plentiful material over extensive area on and in intact lenses within cliff face and dune blowouts” (Bradshaw and Fry 1989:14).

Of the continuing connections with their sea country, Bradshaw and Fry found that:

Knowledge of traditional practices is ... retained by older members of the Broome Aboriginal community. This includes detailed knowledge of reefs, currents, and tides. Both onshore and offshore reefs are named and mythology explains the dangerous currents and how to protect oneself from them” (Bradshaw and Fry 1989:10).

The system of generalized reciprocity that currently exists in respect of seafood taken from the coastal areas has traditional antecedents:

“Information from the traditional custodian indicates that an established trade existed between coastal and inland groups. The sea people exchanged fish, turtle, and shellfish and stone for kangaroo meat and occasionally made incursions along watercourses to visit inland areas for the purposes of exchange and ritual” (Bradshaw and Fry 1989:9).

The Goolarabooloo-Jabirr Jabirr people, and other Aboriginal people with links to the Broome area continue to actively participate in customary fishing on the southwestern Dampier Peninsula.

CUSTOMARY FISHING AROUND BROOME

Overview

The population of the Shire of Broome was 15,386 at the 2006 census.³ The SIA shows that Broome is one of the fastest growing communities in Western Australia, with “...trends [that] indicate continued growth in population in Broome well above the State average” (SIA Vol. 1 – Scope and Profile). According to the 2006 census, 20.2% of the population identified as “Indigenous.” This leaves an Indigenous population of Broome in the order of 2,800. A small proportion of these people will be Torres Strait Islanders. According to the statistical data available on Aboriginal fishing practices, up to about 90% of these people may conduct some form of fishing in a given year (see below). This would give a very rough global number of potential Aboriginal fishers based in Broome of about 2,500.

National Recreational and Indigenous Fishing Survey

A 2003 Commonwealth sponsored statistical study entitled *The National Recreational and Indigenous Fishing Survey* (NRIF) found, in the 13 Kimberley communities that were studied, that between 89% and 93% of Aboriginal people, aged five years and older, had fished at least once in the previous year (Henry and Lyle 2003: 110). Unfortunately the data provided by this study includes both inland and coastal communities, without a clear separation between them. The same study found that approximately 28.5% of the general population of Western Australia over the age of five years had fished at least once in the previous year (Henry and Lyle 2003: 131).

The data generated from the NRIF came from across northern Australia generally, and it is difficult to extract regionally specific information from it. However, it clearly shows that Aboriginal people in northern Australia fish much more regularly than people in the general population. This is likely to be due to a range of factors including: relative poverty – the need to provide food, lack of alternative recreational opportunities – especially in the small communities where the Commonwealth focused much of its research, and a desire to be “on country” to focus on Aboriginal identity.

³ Australian Bureau of Statistics

Two graphs provided in the NRIF usefully summarise the techniques used by Aboriginal fishers in Western Australia – and provide comparisons with Queensland and the Northern Territory.

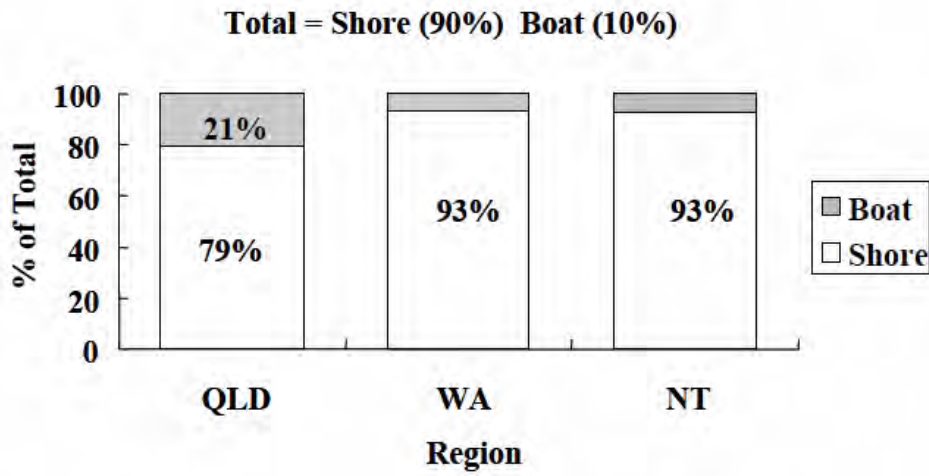


Figure 4. Proportion of annual fishing effort (events), by platform (boat/shore).... (Henry and Lyle 2003:116).

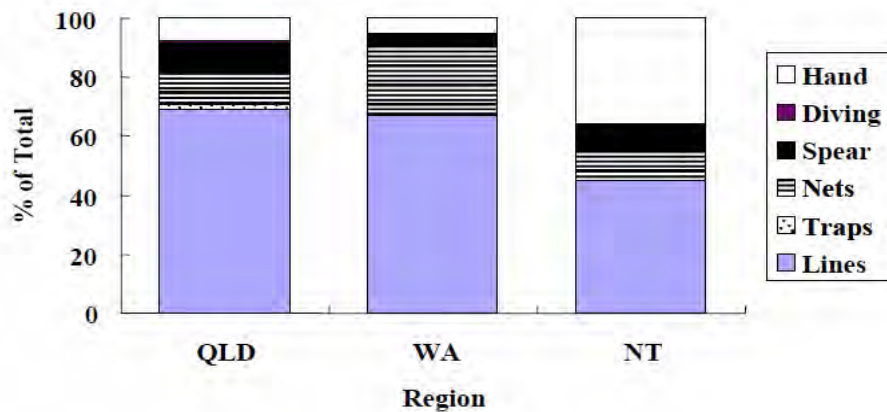


Figure 5. Proportion of annual fishing effort (events), by method and region for indigenous fishers living in communities in northern Australia (Henry and Lyle 2003:116)

These graphs provide rough estimates of the types of fishing that Aboriginal people in general are known to engage in. Very few Aboriginal people own boats for fishing, although the numbers who do are probably growing. Most customary fishing is from shore; line fishing is easy and

accessible to all who can get to the coast with a simple handline. This is the typical manner of fishing. However, nets are also used, both to procure bait, and for catching fish such as mullet which are a highly valued fish, but which are difficult to catch with hook and line.

There are a much smaller number of people who fish with spears. Most of these, based on experience, are using surface spears, but some are snorkelers who use spearguns. Catching certain fish by hand is also practiced, especially for crayfish, but the category may also include the collection of shellfish. Aboriginal people continue to collect a range of shell species, many of which are not taken by non-Aboriginal fishers.



Figure 6. Casting for bait near Manari

Photo by author

Culture, Food, Flavour, and Fun

During the fieldwork a Jabbir Jabbir man described customary fishing around Broome as being for “culture, food, flavour, and fun.” The order in which the priorities are set out appears to be accurate and indicates they are the result of some reflection.

Culture

Aboriginal people consider their cultural selves as Aboriginal people, as being dominant features in their lives. There are both formal and informal aspects to this cultural view of life. Each man interviewed was the member of at least one specific, linguistically defined, cultural group. Each participates in formal aspects of culture, which require, in addition to religious observances, certain obligations and formal relationships with others. They are engaged in reciprocal arrangements with other Aboriginal people from their own and other groups. Formal and informal trading networks are actively engaged and remain highly significant aspects of the local economy that derive from cultural understandings. For Aboriginal groups the distinction between “sea-country” and their estates on land are often indistinguishable. “Country” includes the land and the reef and the sea. (Peterson and Rigsby 1998, Cordell 1992, Meyer *et al.* 1997).

Formal aspects of culture require certain prescriptions and observances that limit what may be eaten. Fish, dugong and turtle, will be apportioned according status and the kin relation of the receiver to the fisher/hunter. Respect, of individuals and the community generally, is shown by the maintenance of these practices. For example, red meat is proscribed for people who are in mourning – during “sorry time.” As a Jabirr Jabirr man put it:

“When I might meet someone who has had a death and he might need to show his respect and not eat meat, and I can show my respect and give him fish - funeral time”

In less formal terms, customary fishing is an integral element of the cultural outlook of Aboriginal people in the Kimberley. It sustains them in their ongoing need to remain connected with their country and provides an important focus for informal engagement with their “countrymen” and “countrywomen,” which reinforces and maintains their cultural outlook.

Food

Wild-caught fish and meats are a highly significant portion of the local economy for Aboriginal people in the communities of the Kimberley, and also in Broome. Wild meat and fish that is procured this way appears to enter systems of generalized reciprocity where it is distributed, first among family members, and then to a wider community where appropriate. This system of reciprocity has obvious traditional utility, since surplus meat could not be stored in traditional times. The widespread use of freezers makes the system more convenient. The Jabirr Jabirr

fishers jokingly referred to it as “freezer fishing” – meaning that they took a meal of fish or other meat from (usually) another’s freezer.

The generalised nature of the reciprocal system means there is no specific requirement to exchange like with like, as might occur during a “barter” session. Meat and fish appears to enter the system, usually the result of the efforts of a relatively small number of good hunters and fishers, and is distributed informally.

“It’s not just from the sea: your uncle might come in from the bush and bring some killer (usually a bullock shot with permission from a station owner), or some turkey for you, or some kangaroo. It’s part of our diet as well as the way we budget for everyday.”

In the communities of the northern Dampier Peninsula, recent work conducted through the Centre for Aboriginal Economic Policy Research ANU (CAEPR) has shown there are quite significant economic savings to be made across the community from this form of economy. Geoff Buchanan and others surveyed the Bardi/Jawi use of turtle and dugong as a substitute for store-bought meat. This study found that although 20% of the population did hunting for turtle and dugong, a small percentage of active hunters (five of a total of fifty-five hunters) provided almost half the catch. In a twelve-month period it was estimated that 11,840 kg of meat came into the community of 588 people. This was worth about \$355,200 in total value, or about \$79.43 to each household per week. In the context of low average weekly incomes of about \$692 per week for households (\$250 per week for individuals) this offset to the food budget is substantial.

One of the G-JJ customary fishers gave some thought to how much meat was purchased in shops and considered his own consumption in the previous week. He had had only one meal where the meat had been purchased, the rest had either been caught himself or had come from the community:

- On the Saturday he caught two turtles, these were spread among five families; the same day he also got some fish and crab, which he kept.
- On the Monday he was at Barred Creek as part of this study and took a mudcrab for himself.

- On the Tuesday evening he caught a stingray.
- In the remainder of the week he availed himself of the freezers of relations and friends.

This fisher, and others, noted that they consider the economics of any fishing venture carefully before embarking on it. Vehicle and boat fuel is usually the main issue:

“We do a quick calculation to make sure the trip is worthwhile. It depends on what we’re after and how far we need to go and how certain we are that we’ll get something. A dugong gives about 200 kilograms of meat, so that is worth going for if you think you’ll get one.”

Flavour

Aboriginal people in the Kimberley universally refer to wild meat and fish as being “fat” when the animal is in its prime and it is the best time, in the appropriate season, to be killed and eaten. Meat and fish in polystyrene containers at the supermarket do not have the same appeal no matter what their quality. One of the G-JJ customary fishers pointed out that it was irrelevant to think about the costs of quality produce available because they would never buy it anyway.

Bush food is preferable. Tastes that are available to people from bush food is not replicable in other foods.

“I like to take the fat from the liver of the stingray – it tastes like oyster. So I mix the liver fat with the flesh from the wings and heat it up like that.”

Fun

Fun is the last item on this prioritised list. This reflects a reverse of the priorities that would be relevant to recreational fishers, who are expected to be fishing primarily for the enjoyment of the experience, and from which good fish, a good feed, and some cultural meaning may result as by-products of the enjoyable experience. Although customary fishers usually enjoy their experience greatly, the enjoyment is subordinate to the other three key factors described above.

Species caught

Customary fishers say they catch the following species at or near James Price Point:

- Maori Sea Perch (*gidit*)
- “Unicorn fish” – Leatherjacket (*gumbul*)
- Surgeon fish
- Painted crayfish
- Coral trout
- Spangled emperor
- Blue bone (parrotfish)
- Oysters (rock)
- Dugong
- Green turtle
- Flatback turtle
- Stingray (oysterback)
- Small sharks
- Yellowtail bream
- Silver Bream
- Rock cods
- Red snapper
- Queenfish
- Trevally

- Javelinfish (Triggerfish)
- Mulloway
- Mullet (two species “deep sea” and “yellow”)
- Threadfin salmon – both species
- Mussels
- Manta rays
- Baler
- Clam

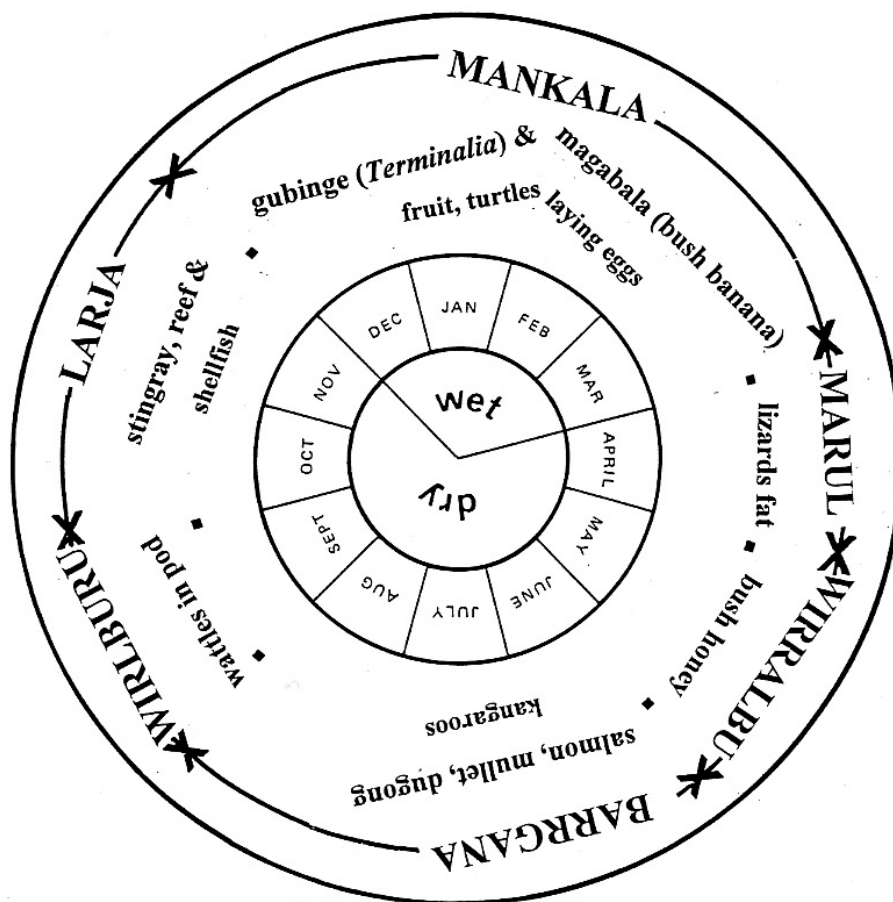


Figure 7. Representation of seasonal coastal activities with reference to Bardi people of the northern Dampier Peninsula (Smith 1997:7)

FISHING AT WALMADANY

James Price Point has a number of features that make it particularly attractive to customary fishers. It has a relatively large reef system associated with it, which extends south of the point, potentially into the area that is likely to be required for use by the proposed JPP LNG precinct. The reef is described by customary fishers as being "... really alive: it has a lot of coral and shellfish, clams and trochus." It has the advantage of being accessible for fishers without the need for a dinghy or boat "... *you can fish straight off the rocks there – you don't need a boat.*" It produces a wide range of fish species, plus both green and flatback turtles, which appear to use the area opportunistically for feeding and some nesting, and dugong. "Yesterday I saw a flatback turtle nesting. Just south of Price's Point." Several people commented that it was a good place to catch turtle. One man specialises in snorkeling and fishing with a spear-gun in the reef's gutters just to the south of James Price Point (JPP).

A hot spot for *Gidit*

Almost all customary fishers remarked that JPP is arguably the best place to catch Maori sea perch, or "*gidit*," – sometimes called "Green Snapper" (*Lutjanus rivulatus*) which is the favoured fin-fish of customary fishers. There was some concern that this species now appears to have a relatively restricted range. Customary fishers reported that *gidit* used to be more abundant, and that it could be caught down to Gantheume Point near Broome, but it now appears to be restricted to the areas north of Quondong and south of Manari.

Bait balls

The "bait balls" that the recreational sector fishers commented on in their component of this report as creating particularly good fishing off the Quondong-JPP coastal area (Wright and Pyke 2009: 9ff.) area also noted by the customary fishers. "*When we're walking along the beach we see the big black schools of bait fish – and the Queenies and Trevallies getting into them. I saw a marlin off the rocks at JPP once.*"

Camping

JPP is considered an excellent fishing place, and has its passionate customary advocates: "*We go there every chance we get.... Most of our family goes there.*" However, it appeared from the interviews that

it is used somewhat less now than it was in the past. When access was more difficult in previous years, Aboriginal families would camp at Walmadany for weeks on end. Now, most fishing is done on a day-trip basis, although some people do continue to camp for short periods behind the cliffs. Increasing access, and more disturbance from non-Aboriginal locals and tourists from Broome seemed to be the key reason people use it less for longer term outings. Also, however, the better access permits people to come on day-trips easily.

Will use of Walmadany continue?

None of the customary fishers interviewed supported the construction of an LNG facility at JPP. All saw it as an unwelcome intrusion into their fishing grounds. However, many of the Jabirr Jabirr customary fishers took a pragmatic view and were willing to accept that there could be significant potential benefit to traditional owners as a result of the precinct's development. Some of these fishers held optimistic notions, that some aspects of fisheries could be improved by the development, for example by providing fish aggregating devices (FAD) in the underwater apparatus, or establishing extra opportunities for benthic habitat in the breakwater to be constructed, and so forth. These people appeared willing to adopt a "wait and see" attitude to whether or not they would continue to use the JPP area following the proposed precinct's construction.

Other Broome-based customary fishers that were interviewed saw no advantage to them, in the construction of the proposed precinct, and lamented the fact that it would deprive them of an important customary fishing place. None of these people thought they would use the JPP area if the plant were built:

- *"We've got to fight for every bit of land we get.... It will impact everything.... We wouldn't bother going up there if it is built.... I don't think it is a good idea – I don't like it."*
- *"It chips away at our culture until soon we will have nothing.... Our kids will be staying in town and getting into trouble because they can't get out on country."*
- *"The size and shape of this – you just wouldn't want to fish there anymore."*

Only time will tell if Walmadany continues to be used by customary fishers. Psychologists tell us that our perceptions can be quite labile. We see what we expect to see. It is possible that once established, a large development north of Broome will simply become incorporated into people's minds and they will look past it. An interesting website on these perception issues – from Psychology Today – is provided here for reference.

<http://www.psychologytoday.com/blog/imagine/200907/do-you-see-what-i-dont-see> (Accessed 02/10). According to the website: “You often perceive what you expect to perceive and just as often ignore what falls outside your expectations.”

Table 1: Key issues raised by customary fishers and suggested mitigation strategies

Issue raised	Potential Impact/ Benefit	Project Phase	Risk/Need Factor	Potential Mitigation Strategies/ Opportunities	Responsibility/Key Drivers
“It’s just too big.”	The scale of the precinct is bigger than any other West Kimberley industrial project and this is unsettling to Traditional Owners who are used to low-scale developments. They fear they will lose their feeling for the place and will not want to go there anymore.	Construction /Operation	High	The planning of the sites for the gas trains immediately behind the coastal dunes is helpful in providing at least a small buffer strip of country between much of the sea-front and the land-based industrial site.	DSD Planners Proponent
Local overfishing during construction phase	Local depletion of fish due to recreational overfishing by construction workers.	Construction	Critical	Traditional owners have a right to expect that disruption to fish stocks is minimised, and their ability to recuperate following construction is maximised. The proponent should ensure that firm management arrangements are in place to limit the effects of workers fishing recreationally during the construction phase.	Proponent Department of Fisheries Kimberley Land Council

Increasing pressure on local fish resources.	Substantial cumulative effects on already depleted coastal fish resources resulting from increased population.	Construction and Operation	Critical for possible uncontrolled access during construction; medium in terms of long-term growth of Broome	Integrated coastal and marine planning processes should consider increases in future use of fish resources in areas surrounding Broome and on the west side of the Dampier Peninsula.	Departments of: <ul style="list-style-type: none"> • Planning • Environment and Conservation • Fisheries Kimberley Land Council Recfishwest Western Australian Fishing Industry Council
Access to areas surrounding the JPP LNG Precinct, and coastal areas to the north enhanced.	The LNG plant will alter current arrangements to access JPP and coastal areas to the north. Public access may be easier, with increased pressure on coastal resources.	Construction & Operation	Critical	Integrated coastal and marine planning processes should be developed to manage altered arrangements for public access. The rights and interests of Traditional Owners should feature prominently in these discussions. It may be possible to control access but this needs to be discussed with all parties that may be affected.	Departments of: <ul style="list-style-type: none"> • Planning • Environment and Conservation • Fisheries Kimberley Land Council Recfishwest
Concern that increased international marine traffic will increase the likelihood of exotic pests and disease being introduced	Traditional Owners are worried about the introduction of marine pests and disease.	Operation	Critical	Specific relevant regulations relating to biofoul inspections should be reviewed and enhanced, if possible, to achieve highest possible levels of protection. Traditional Owners were of the view that biofoul inspections (Quarantine Pre-arrival Report) should be conducted by licenced Australian inspectors as a condition of entry to Australian waters Monitoring of potential for introduced	Proponent Australian Quarantine Inspection Service (AQIS) Department of Agriculture Fisheries and Forestry (DAFF) Department of Fisheries

<p>Need for failsafe design of wharf to protect environment</p>	<p>Proposal that the wharf and marine facilities be designed so that any spills or accidents are automatically contained</p>	<p>Construction and Operation</p>	<p>Medium</p>	<p>Traditional owners suggested that some form of skirting or other built-in feature might be designed into the wharfs to ensure that possible spills of oil and other contaminants do not enter the sea.</p>	<p>Proponent</p>
<p>Green and flatback turtles affected by noise and light.</p>	<p>Although not a major nesting area like the nearby Lacepede Islands, local turtle egg laying habits may be disturbed.</p>	<p>Construction and Operation</p>	<p>Medium</p>	<p>Technical lessons will have been learned about this issue from Barrow Island and elsewhere. Traditional Owners insist on the best possible mitigation measures. Although JPP is not known as a major turtle nesting place, Traditional Owners' experience is that turtles do nest there – possibly opportunistically.</p>	<p>Dept. of Environment and Conservation</p>
<p>Need to go further and further afield to find relatively untouched marine environment</p>	<p>The proposed JPP LNG project may contribute to the substantial natural population growth anticipated for Broome and have indirect but significant cumulative effects on natural</p>	<p>Construction and Operation</p>	<p>Medium</p>	<p>It is inevitable that further development of Broome will create increasing demands on local marine resources. The SIA points out that the JPP LNG precinct will contribute a small amount to the overall population growth of Broome.</p>	<p>Department of Environment and Conservation</p>

resources surrounding Broome.					
Need for integrated planning – management, and rangers	Traditional Owners want to discuss and negotiate with other stakeholder groups about appropriate use of coastal and marine environments.	Construction and Operation	High	Traditional Owners should be supported and assisted to enter discussions with recreational and commercial fishers, pearlivers, aquaculturalists, conservationists, oil and gas operators, and others. Appropriate management arrangements should be negotiated between these groups in the Kimberley, where finite coastal resources are being allocated.	All relevant stakeholders plus government
There is insufficient policing of existing fisheries rules.	Policing of recreational fishing in the Kimberley region is currently limited. The precinct may exacerbate this problem.	Construction and operation	High	Most customary fishers will welcome more active management from DoF. Training of Aboriginal rangers may be helpful, but there should be long-term support of individuals. Programs should be integrated across relevant agencies.	DoF DEC Proponent

ISSUES RAISED BY CUSTOMARY FISHERS

“It’s just too big”

All customary fishers interviewed commented on the size of the proposed development. Most said that, as a result, they were unlikely to feel comfortable fishing near the JPP LNG precinct when it is built. They thought it would alter their feeling for the country and that this would be a reason for them simply not to return to the area. When a group of Jabirr Jabirr men was asked the question: “When this place is built and everything has settled down, do you think you’ll fish there as often as you do now?” the response was immediate and negative:

“Nope. Nah. We’d rather go far away from there. Like with all those ships and noise and all those people there – we’ll have to go more far, you know.”

One younger person pointed out, however, that people continue to use the Broome Wharf for fishing and that it too was considered a huge industrial structure. He thought that, over time, people would adapt to the presence of the LNG precinct and, so long as there were no pollution and other problems, it would be accepted as part of the re-adjusted land and seascape.

Several people interviewed said that they used the JPP area for fishing now less than they had in the past because of the roads and easy access that encourage tourists to use the area. One older interviewee said that as a boy his family would camp at *Walmadany* (JPP) for three weeks at a time and they would happily live off the country there. At that time there was “just one small track” and “you wouldn’t see people for days.” But now this person travels further north, at least to Manari, if he wants to do some fishing. He occasionally uses JPP but finds it too busy for his liking.

Local overfishing during construction phase

It was generally thought, by both the customary and recreational fishing sectors, that something would need to be done about the potentially intense fishing pressure that could occur during construction of the LNG facility. At the workforce peak upwards of

3,500 workers are expected to be located near the LNG facility. The possibility for management arrangements was discussed with the G-JJ group, who thought that discussions should take place with the range of interested stakeholders, including Traditional Owners, the recreational sector and others – especially Government and the proponent.

Local stocks of relatively territorial fish such as the favoured Maori Sea Perch (*Gidit*), coral trout and other reef species will be under intense pressure during the construction of the facility, due to loss and disruption of habitat. It seems common sense that the workers that are thought be required to construct the LNG facility should not be permitted to fish recreationally near the construction site. To do so would risk severe localised overfishing. There was some skepticism among customary fishers that such a blanket ban could be accomplished. They pointed out that powerful unions might insist that their workers be able to fish for recreational purposes. If such a scenario were to develop, native title rights – that are almost certain to be held by the Traditional Owner groups - may be a useful. However, it needs to be acknowledged that the courts generally have found that native title rights not to affect the public right to fish, or commercial fishing. Nonetheless, Government is obliged to protect fisheries resources. In similar jurisdictions such as Canada, the USA, and New Zealand, Indigenous rights to fish encumber governments to protect these rights. This often leads to arrangements that establish effective co-management regimes that are helpful to all sectors that are interested in healthy fisheries.⁴ The weaker rights held by Australian Traditional Owners are dealt with on a policy basis.

Thus, the terms of reference (ToR) for the Strategic Assessment of the plan for the proposed JPP LNG Precinct, at Clause 9 states, among other things, that:

The Report must identify and describe the specific measures intended to avoid, minimise and mitigate for the potential environmental and Indigenous impacts of the Plan, and any measures to rehabilitate damage to the environment or impacts on Indigenous peoples' lives, values, or culture.

⁴ See, e.g. Dave Moore, “The Aboriginal fisheries experience in Canada,” and Guy Wright “Aboriginal fishing rights in practice - Australia and Canada” both in Paul Kauffman (ed.) *Water and fishing : Aboriginal rights in Australia and Canada*, 2004, Aboriginal and Torres Strait Islander Commission, 2004

In terms of fisheries, this places an onus on Government and the project proponents to reduce the impact on localised fish stocks wherever possible. Customary fishing on the western Dampier Peninsula is clearly important to “Indigenous peoples’ lives, values, [and] culture.”

Government may have difficulty placing a blanket ban on construction workers fishing in the vicinity of the LNG precinct. Such a ban on the construction workers may risk the need for similar bans to customary, recreational and commercial fishing, which would be unlikely to be accepted.

The proponent will need to have management strategies in place to control the recreational activities of its workers during their free time. The workforce is expected to be engaged on a fly-in-fly-out (FIFO) basis, in which there would be limited time for recreational fishing in any case. The waters immediately adjacent the LNG precinct construction site will be off-limits for safety and National Security reasons.

Nonetheless, areas such as Barred Creek and the coast north of JPP itself will be susceptible to overfishing by a dramatically increased number of people working and living in the immediate vicinity for a period of time. Localised over-fishing could dramatically affect the ability for the stocks of reef-fish and other species to recuperate following completion of the project. Even if there were limitations imposed that permitted, for example, fishing by construction workers as part of guided tours, the resulting increases in fishing activity could be damaging to local stocks of reef fish and other inshore species. In the opinion of the Traditional Owners interviewed, the fish stocks that they have always relied upon are currently in a state of near collapse, due to increased pressure from Broome (see next section).

Perhaps the simplest way for the western Dampier Peninsula to be protected from overfishing by workers during the construction phase is for the proponent to insist, as a condition of employment, that its workers do not fish recreationally on the west coast of the Dampier Peninsula. Although there may be some policing issues, such a ban would provide a clear message that the proponent is committed to minimizing the local environmental effects of its workforce.

Increasing pressure from growth of Broome

All the Traditional Owners that participated in the study were especially concerned about the growth of the general population in the Broome region and the pressure that this would place on fish and other resources. All Traditional Owners interviewed considered this to be the most significant fisheries issue associated with the proposed JPP LNG Precinct.

The overall Social Impact Study (SIA) has found that the population projections for the Shire of Broome will be mainly independent of the additional population generated by the JPP LNG precinct. The 2006 census established Broome's population as 14,436 (Australian Bureau of Statistics), but the town swells during the tourist season to about 45,000. Without development associated with Browse Basin gas, Broome is expected to double in size from an estimated 17,100 people in 2011 to 31,400 people twenty years later in 2031.

The table below, drawn from the JPP LNG social impact data, shows that the population of Broome is expected to continue to grow steadily regardless of future large-scale industrial development (bottom-line). With a "medium" level of development associated with the proposed JPP LNG precinct, population is expected to grow somewhat more substantially (top-line).

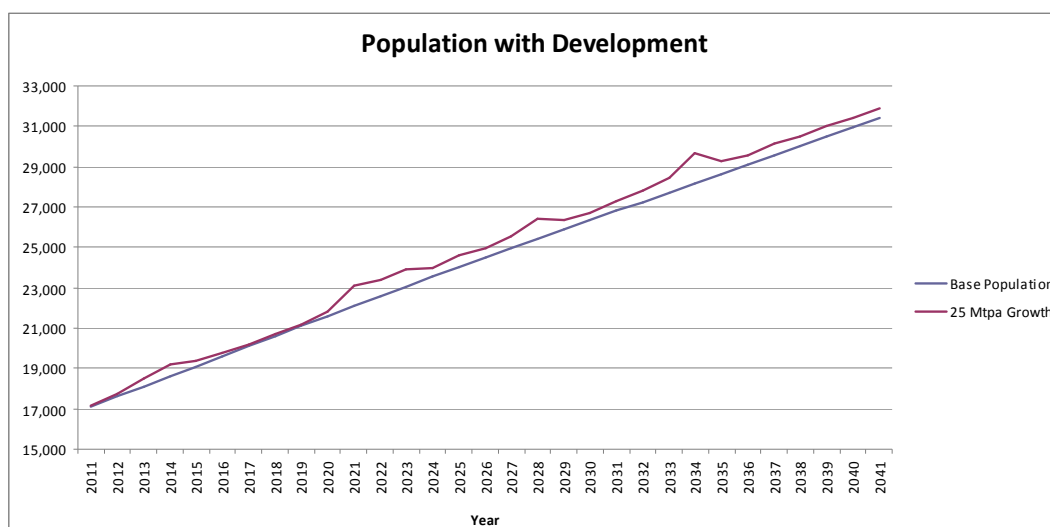


Figure 8. Top line assumes population growth with JPP LNG in operation.
Source: Social Impact Assessment - Scoping Document - Volume One

Although the overall population growth attributable to the JPP LNG precinct is relatively modest – about 350 full-time ongoing positions are expected – this is cumulative growth that adds to the already substantial growth expected in the Shire of Broome.

An important part of issue about the growth of Broome, for Traditional Owners, appears to be the general concern, among local Broome Aboriginal people, that their town and its hinterland, once valued for its small-scale, sleepy, and informal character, is rapidly becoming a bustling regional centre, that also fills to bursting with tourists during the Dry season. There is little space left for the “Broome-time” ethic of studied insouciance that was once highly valued but is now a cliché relegated to tourist brochures.

The customary fishers considered the need to cope with the inevitable influx of people in pragmatic environmental and social terms. All lamented the dwindling supplies of marine resources. Although a relatively successful day was had at Barred Creek, when about six mud crabs were taken, the Jabirr Jabirr Traditional Owners were quick to point out that this had been an exceptional day in recent experience, and that in earlier times the crabs were much more plentiful and easier to catch. “Yesterday we got some crabs but more days we’d go and get none.” Of course it is also true that fishers of any persuasion tend to remember their big catches, which are always in the past.

Another customary fisher noted his perception of environmental changes in Roebuck Bay. In his view, Roebuck Bay had been “devastated” by pollution, especially phosphorus that is washed into the Bay and helps foster algal blooms. He also commented that the Mangroves around Broome were suffering and that an unhealthy change in species mixes was occurring. He commented, “When we were young it was a paradise, food was everywhere, but now it’s getting hard to find – because of the relentless development of Broome.”

This fisher said his primary reason for fishing and hunting was to aid in feeding his large family. He said that he regularly fished on the southwest coast of the Dampier Peninsula and noted that JPP was one of the best accessible places to fish. He was concerned that the combination of the increasing population pressure, and the likelihood of large scale disturbance in the waters surrounding JPP, would make fishing north of Broome

unviable for him. His alternative was to travel south to areas on Roebuck Bay around Thangoo Station. This was too far, he explained, because it would cost too much in vehicle fuel to get there.

Maritime hygiene

G-JJ people and other Traditional Owners, were concerned about the range of environmental hazards that may be associated with the proposed JPP LNG precinct. In particular, and in common with pearl farmers, commercial and recreational fishers, they worried that as yet unknown pest species and diseases could be introduced from the increase in international shipping traffic that would accompany the precinct's development. Known pests such as the black striped mussel, Asian green-lipped mussel already cause concern, but customary fishers were also anxious about other pests that are as yet unknown. (See for example Hutchings *et al.* 2004, Minoru 2000).

The concern about the introduction of pests and diseases stems, in part from the same sense of the need for environmental responsibility as other members of the public, but it has the added imperative that Traditional Owners rely upon the marine environment for a considerable portion of their basic food needs. As pointed out above, there is a considerable economic element to the take of basic resources from the seas. If the ability to use the seas for basic food provision were disrupted, the impacts would be devastating.

All customary fishers interviewed expressed their expectation that the highest possible levels of cleanliness and inspections would be required of vessels using the JPP facility. There was some concern among G-JJ people that they understood some decision makers relevant to the JPP LNG precinct had resisted the notion of "world's best practice," in respect of maritime hygiene issues. Although this phrase may have become somewhat cliché and may be problematic, it was clear that Jabirr Jabirr traditional owners expect that there will be no effort, or expense, spared to ensure that pests and disease are not inadvertently introduced to the Kimberley environment. Any such introduction may affect their rights as well as the rights of other users of the marine environment.

Customary fishers made three potentially useful suggestions:

1. Australian inspectors working to the highest Australian standards should make all pre-departure inspections of international shipping destined for the proposed JPP facility.
2. Where ballast water or other foreign material needs to be discharged, it should be done at a single place that can be monitored, so that if disease or pests are transported they will be found, hopefully contained, and dealt with.
3. Some form of failsafe design could be designed into the wharf and other facilities to contain any accidental spillage that may cause pollution.

Potential pollution and silting

In common with the other fisheries interests, customary fishers were concerned that there would be considerable repetitive dredging required for the proposed shipping channels and harbour, and that this would cause excessive silting of a wide area because of the currents and high tidal range in the area. The amount of dredging that is likely to be necessary for the construction of the port and shipping channel, and estimations of the frequency with which dredging will be required, does not yet appear to be known.

Indigenous Rangers Needed

An integral part of G-JJ expectations for better planning is that a workable system of rangers would be developed, using local Indigenous people. Most customary fishers interviewed complained that the extremely small number of DoF compliance officers allocated to the massive Pilbara/Kimberley region could not possibly provide adequate policing of fisheries and other marine issues. Indigenous ranger training programs have been successfully developed elsewhere. Appropriately supported marine rangers could provide valuable services that are of benefit to all user groups.

Access north of JPP may be enhanced

A key issue for many recreational fishers (Wright and Pyke 2009:23) is that access to the north of JPP may be significantly hindered by the proposed JPP LNG precinct. They hope that access will be established around the precinct so that they can continue to travel to Manari and places further north. This is resisted by the customary fishers, who see that the increasing numbers of campers and day-trippers accessing country around Broome is one of the key negative features of Broome's expansion – which will be exacerbated by the proposed JPP LNG development. As part of the questioning the G-JJ group was presented with the thoughtful idea of a recreational fisher – that a boat ramp and parking facility created as part of the JPP LNG precinct would help to alleviate recreational fishing pressure around Broome. The G-JJ group was very quick to reject this idea as putting too much extra pressure on the already struggling resources of the western Dampier Peninsula.

The G-JJ group were concerned for their own interests in the Barred Creek to Coloumb Point segment of the coast, but they were equally concerned for their fellow Aboriginal people based in Beagle Bay and the communities further north. They pointed out that recreational fishers accessing the coast with boats from JPP would easily run north to Beagle Bay and beyond. This, they thought, would have a detrimental effect on the capacity of the people at Beagle Bay to conduct their customary fishing:

“You put a boat ramp there, and these people with their 250 horsepower will come along and – it's not far to Beagle Bay, or the Lacepedes. People in the communities spend a big part of their week getting meat from the country and the sea. If recreational fishers get easier access up there, it will mean less for the communities.

“For us it's not like for the recreational fishers – they say ‘oh, we didn't get any fish today, we'll have to have porterhouse steak for dinner.’ But for us, you get tinned meat. And old crusty bread!

“We'll let the hub there, but nothing else.”

THE NEED FOR INTEGRATED PLANNING

The proposal to situate an LNG processing facility at JPP has highlighted planning matters that need to be addressed in specific detail. The facility is proposed to be superimposed on a situation where a range of user groups perceive there are already significant constraints to use of the limited areas of the west coast of the Dampier Peninsula. Aboriginal people, recreational fishers, aquaculturists, some commercial fishers, and pearl farmers, have needs that need to be fit together. The user groups who hold rights in the area need to be permitted to take resources responsibly, within the increasingly constrained space of the Peninsula. The G-JJ people have considered these issues and propose a form of integrated marine zone planning in which all relevant stakeholders would be able to address their needs. They said:

“We need to develop a forum where you get all interested people in the room, like the pearl farm mob –they’ll have their own issues; and the recreation mob; commercial mob. And sit in a room and people put up what their issues are and talk about it and come to some sort of arrangement. As long as Traditional Owners have a seat there and have a say, that’s what’s important. In the past it hasn’t happened like that.

“And this thing JPP LNG’ – it gives us the opportunity to find resourcing so we don’t have to rely on government to set up things. We can take the lead and get things happening.”

The G-JJ group, together with most Kimberley native title groups, will be found to hold significant native title rights. Recognition of these rights means that Traditional Owners will be an integral part of any negotiated arrangements that are relevant to integrated coastal and marine planning in the Kimberley. The substantial property rights that are represented by native title in regions such as the Kimberley mean that Traditional Owners’ rights will, in many places, be the dominant set of rights that need to be taken into account in planning arrangements. Inevitably this will lead to the need for Traditional Owner groups to have the capacity to enter high-level sophisticated discussions and negotiations.

There is a critical need to enhance the capacity of Traditional Owners to engage in regional coastal and marine planning matters. This need is supported by the terms of reference (ToR) for the Strategic Assessment of the plan for the proposed JPP LNG Precinct (see Appendix 2). Clause 8 of the ToR states, among other things, that:

“The Report must include a description of legislation, policies, performance and mitigation measures that are relevant to the implementation of the Plan, the actions and classes of actions undertaken under the Plan, to avoid, minimise, manage and mitigate the associated environmental and Indigenous impacts.”

There is an explicit reference in Clause 8 that extends the need to consider and avoid impacts beyond the immediate surrounds of the development itself. Clause 8 states that:

“The Report must set out specific management arrangements, including the possible role of Traditional Owners in those arrangements.... It must describe arrangements that will be in place ... to avoid impacts on significant environments, minimise environmental impacts generally and enable areas beyond the hub and port precinct to be maintained in an environmentally and ecologically sustainable manner.”

Although significant planning work has already been done in relation to planning for the impacts of the LNG precinct on the Dampier Peninsula, specific fisheries and marine resources planning remains to be done. There are a wide range of competing uses – and visions for future uses – of the marine and fisheries resources of the Dampier Peninsula. This creates an urgent need for significant planning exercises to be initiated.

Integrated coastal and marine use planning refers a collaborative process in which all those stakeholders with interests in the coastal Dampier peninsula would work together to achieve the best result for the coastal environment, continued customary and recreational use, and economic development within the coastal and marine Dampier Peninsula. Indigenous groups, who have very strong environmental stewardship rights and interests may become the drivers for change towards this outcome. For example, in coastal British Columbia Canada (BC), First Nations Peoples have, in partnership with the Government of Canada, developed an integrated planning process within a larger area of coastal BC.

See for example <http://coastalfirstnations.ca/activities/marineuse.aspx>).

Although the coastal BC area is larger, and arguably more complex than the coastal Dampier Peninsula, it could be looked to for lessons in how to achieve Indigenous-led coastal planning initiatives. Mediated negotiation between fisheries sectors has also proven beneficial in Western Australia and this general approach may be appropriate for the planning needs of the Dampier Peninsula (see e.g. Wright *et al.* 2000).

The statement of Traditional Owners at the beginning of this section implies that some may be willing to use funds generated from the land – use agreements surrounding the negotiation of the LNG facility on G-JJ land to initiate integrated planning processes. It may be expected that proponents and Government should assist these initiatives where possible.

The G-JJ Traditional Owners should expect to be fully engaged in the precinct management arrangements, and may need to be supported, as individuals, and as a group, to participate in discussions at the highest levels. Any support needs to be provided in a manner that maintains both the reality and the perception of complete independence. The Kimberley Land Council is likely also to be engaged in these processes in a supporting role. Both the proponent and Government should assist these agencies and support their need for independent engagement.

CONCLUSIONS

For millennia Aboriginal people have used the coastal areas between Barred Creek in the south, and Manari in the north, for their marine resources. In the lifetimes of the Traditional Owners who participated in this study, the coastal area and reefs have been key foci of their customary fishing. They have spent considerable portions of their lives camping and fishing on this coast and it is an important part of their cultural identity. For most it is also an integral part of their traditional country. *Walmadany*, known as James Price Point has been a particularly important place for customary fishing because of its reef system which offers good access to a range of fish species and other animals without the need for boats and other equipment.

Customary fishing is highly important to Traditional Owners for the transmission and continuation of cultural understandings, for the procurement of food in an Aboriginal economy that often struggles with poverty, for the taste of wild-caught fish and meat that can not be substituted, and for the enjoyment that is derived from active participation in fishing and related cultural activity. The development of the JPP LNG precinct heralds significant change to this coastal area and most of the qualities that have made this coast so valuable to Traditional Owners will be compromised.

In general terms the Traditional Owner customary fishers who took part in this study thought that the development of the JPP LNG precinct would have a significant and limiting effect on their continuing use of *Walmadany* as a place for customary fishing. Most were concerned that the development would reduce their ability to catch fish and marine fauna near JPP, though some saw that there could be minor benefits as well.

There was concern that the physical construction would be locally disruptive, but most Traditional Owners thought that this disruption would eventually settle out and the project could be reasonably benign environmentally in the longer term. However, the possibility for negative systemic environmental change remains. The possible introduction of pests and disease, and the as yet unknown effects of dredging were the key concerns raised. The G-JJ group was especially firm in its expectation that the highest level of precaution should be taken to ensure that systemic environmental change does not occur.

An important systemic issue that troubles the Traditional Owners appears to have relatively little to do with the construction of the JPP LNG precinct. The growth of Broome places great strain on the limited marine resources around Broome, and north up the Dampier Peninsula. It is projected to continue at a relentless pace regardless of the precinct's development. With this Resource sharing issues between customary, recreational, and commercial fishers will undoubtedly develop in future. Issues about continued access of the general populace and tourists up the Dampier Peninsula coast will continue to develop. The JPP LNG precinct's development will contribute to this problem by adding cumulatively to the expanding Broome population, but may also provide a source for some form of remediation.

The G-JJ group raised the importance of integrated planning processes in which all stakeholders are involved. Traditional Owners, including communities such as Beagle Bay and Lombadina/Djarinjin, have an obvious and certain place in any such discussions. As members of the group pointed out, the development of the JPP LNG precinct may provide sufficient local resources to reduce reliance on Government and permit Aboriginal people to take a lead role in establishing integrated planning processes. It should be expected that the recreational, charter, commercial, aquaculture, and pearling sectors would welcome discussions about how to share limited resources in the coastal areas of the Dampier Peninsula.

References

Cordell, John 1992. Managing sea country: tenure and sustainability of Aboriginal and Torres Strait Islander marine resources. Consultant report, ESD Fisheries, Canberra
Henry, Gary W., and Jeremy M. Lyle 2003 *The National Recreational and Indigenous Fishing Survey*, Fisheries Research and Development Corporation Project No. 99/158

Hutchings, P.A., R.W. Hilliard, and S.L. Coles 2002. "Species Introductions and Potential for Marine Pest Invasions into Tropical Marine Communities with Special Reference to the Indo-Pacific," *Pacific Science* Vol. 56 No.2 pp. 223-233

KPP Business Development 2009. Tourism Impact Assessment – Kimberley Liquefies Natural Gas (LNG) Project. TWA 39/2009. Commissioned by Tourism Western Australia, in partnership with The Western Australian Department of State Development.

Minoru, Soimachi, 2000. "Mass mortalities of Japanese pearl oyster *Pinctada fucata martensi*", *Aquabiology* Vol. 22 No. 1 pp. 39-44

Gary Meyers, Malcolm O'Dell, Guy Wright, and Simone Muller, 1997. A Sea Change in Land Rights Law: The Extension of Native Title to Australia's Offshore Areas (Australian Institute for Aboriginal and Torres Strait Islander Studies, Native Title Research Unit.

Moore, Dave 2004. "The Aboriginal fisheries experience in Canada," in Paul Kauffman (ed.) *Water and fishing : Aboriginal rights in Australia and Canada*, 2004, Aboriginal and Torres Strait Islander Commission.

N. Peterson and B. Rigsby 1998. (eds). Customary marine tenure in Australia. Sydney: Oceania Monograph No 48.

Smith, Moya 1997. "Fish-capture sites and the maritime economies of some Kimberley coastal Aboriginal communities: A project funded by the National Estate Grants Programme", Western Australian Museum

Woodside Energy Ltd 2007b. "Fish Monitoring Program: Maxima 3D Marine Seismic Survey, Scott Reef"

Woodside Energy Ltd 2008. "Environmental Compliance Report: Maxima 3D Marine Seismic Survey, Scott Reef"

Wright, Guy, Rebecca Metzner and Hugh Chevis, 2000. Using Mediation to Solve Fisheries Disputes in the Guidelines for Voluntary Resource Sharing Process, Fisheries Western Australia Western Australian Department of Fisheries. www.wa.gov.au/westfish/corp/broc/mediation/mediation.pdf

Wright, Guy 2004. "Aboriginal fishing rights in practice - Australia and Canada" in Paul Kauffman (ed.) *Water and fishing : Aboriginal rights in Australia and Canada*, Aboriginal and Torres Strait Islander Commission.

Zhang, J., Hertzler, G. and Burton, M. 2003, *Valuing Western Australia's Recreational Fisheries*, prepared for the 47th Annual Conference of the Australian Agricultural and Resource Economics Society, Fremantle.

Appendix 1

Media Release - Definition of Customary Fishing

Date: Wednesday, 23 December 2009

Customary fishing to be recognised under sustainability principles

The role that sustainable customary fishing plays, in the continuing connection to traditional law and the lives of many Aboriginal people, is being recognised in a new Department of Fisheries WA policy.

Customary fishing serves the cultural, educational and traditional purposes of the State's Indigenous communities and is separate to recreational and commercial fishing.

Chief Executive Officer Stuart Smith said recognition of customary fishing was vital, in order to respect the rights of Aboriginal people, but also to establish clear principles of sustainable fisheries management that needed to apply across all fishing sectors.

"We have engaged with Indigenous groups and stakeholders in other sectors over a long period of time to develop this policy," Mr Smith said.

"Customary fishing provides for the personal, domestic, educational, ceremonial and other non-commercial purposes of Western Australia's Aboriginal people, who have maintained their tradition, customs and connection with land and waters."

Mr Smith said the policies and practices of the Department of Fisheries needed to be consistent with national and international laws that acknowledged traditional and cultural rights for Aboriginal people to fish and hunt.

"Native Title law recognises that the States may regulate customary fishing and the Department of Fisheries can establish rules, through consultation with the customary sector, to ensure that customary fishing continues to be conducted sustainably," he said.

"In some cases customary fishing rules might be the same as commercial or recreational rules, for example where restrictions are needed to protect certain species or certain areas in WA's marine and freshwater environments.

"In other cases, however, there may be differences in the rules that apply for each sector."

Mr Smith said where an Aboriginal person was engaged in customary fishing, the person must have a connection to the area that was recognised by Traditional Owners.

“Where this condition is not met, the person may fish as a recreational fisher according to the same rules that apply to all Western Australians,” the CEO said.

“The new policy helps to clarify the rules for all fishing sectors and should enhance compliance for our fish stocks. All sectors in the State need to be managed to ensure there will be fish for the future and that is the guiding principle, which will continue to drive management over time.”

Appendix 2

Clause 8 of the “Terms of Reference for Strategic Assessment of a Plan for a Common-User Liquefied Natural Gas Hub Precinct to Service the Browse Basin Gas Field”

8. Proposed Management Arrangements for the LNG Precinct and associated activities

The Report must include a description of legislation, policies, performance and mitigation measures that are relevant to the implementation of the Plan, the actions and classes of actions undertaken under the Plan, to avoid, minimise, manage and mitigate the associated environmental and Indigenous impacts.

The Report must include information on any other requirements for approval that apply, or are likely to apply, in relation to the Plan including details of any Local or State Government planning scheme, or plan or policy under any Local or State Government planning system, or State or Commonwealth legislation, such as:

- a) what environmental assessment of the proposed project has been, or is being, carried out under the scheme, plan or policy;
- b) how the scheme, plan or policy provides for the prevention, minimisation and management of any relevant impacts;
- c) explicit clarification as to who is responsible for the proposed management arrangements;
- d) how the scheme will ensure that obligations contained in the Aboriginal Heritage Act 1972 (WA) are met; and
- e) how to provide effective protection for places that can be considered under the Aboriginal and Torres Strait Islander Heritage Protection Act 1984.

The Report must set out specific management arrangements, including the possible role of Traditional Owners in those arrangements. It must describe arrangements that will be in place under or associated with the Plan that are intended to ensure that development and operation of the Precinct and associated actions and classes of actions are undertaken in a manner designed to avoid impacts on significant environments, minimise environmental impacts generally and enable areas beyond the hub and port precinct to be maintained in an environmentally and an ecologically sustainable manner.

The report must also provide a description of the likely effectiveness of these management arrangements and how and to what extent they will meet endorsement criteria at Attachment C.