



Site Evaluation Workshop

3 Key Points

Objectives of the Workshop

1. Provide the Traditional Owners with information that will assist in their decision making
2. To identify potential technical, environmental and heritage constraints relative to each location
3. To help identify knowledge gaps that will inform additional environmental, socio-economic and heritage studies



3 Key Points: Kimberley Land Council Wayne Bergmann

1. Not 'development at any cost'
2. This is a decision that will impact on many generations
3. This is as much an opportunity as a challenge



Focus for Next Step

- More level headed thinking and less speed

3 Key Points: Terrestrial Environmental Experts (1)

1. Process to consider environmental (terrestrial) considerations to provide input to site selection in the absence of comprehensive information
2. Importance of regional context of values of NW Kimberley
 - global significance of remote area
 - potential regional implications from quarantine
 - potential future land based infrastructure
3. Implications of site size on environmental management capacity on-site. Minimum site size constraints likely to have environmental implications off site

Focus on Next Steps

1. Finalising information for assessment panels
2. Information on likely future gas fields with release of new petroleum tenements
3. Implications for most economical hub location



3 Key Points: Terrestrial Environmental Experts (2)

1. Interplay of extreme weather and tidal processes with complex geologic structure of region
2. The locations are significantly different from a geomorphologic perspective
3. Component landforms indicate marked differences in the affects of the primary processes, and therefore on the environmental risks likely to occur



Focus on Next Steps

1. Thorough appraisal of temporal and spatial variation in the primary driving processes
2. More detailed mapping of the coastal and inshore marine geology of the region
3. Complete mapping of the geomorphology of the coast



3 Key Points: Terrestrial Environmental Experts (3)

1. 90-94% of impact of any development is visual
2. Naturalness, ruggedness and diversity are the key drivers
3. There is a trade-off between number of viewers and impact



Focus on Next Steps

1. Perception studies of short listed sites
2. Cross-cultural studies, including Traditional Owner perception



3 Key Points: Terrestrial Environmental Experts (4)

1. Conservation significant fauna rare or poorly collected
2. Habitat is good comparative measure because extent is definitive
3. SRE could be the key to quantitatively assess impacts

Focus on Next Steps

1. Impact of footprint, not broad proposed areas
2. Define a method to measure and stick to it – reduce variables to test one experimental variable

3 Key Points: DEWHA (1)

1. Strategic Assessment

- The Strategic Assessment
 - is dealing with immediate issues associated with managing the environmental impacts of development of the Browse gas reserves
 - provides a means of securing long term conservation and management of the environmental and cultural values of the west Kimberley
 - provides a platform to develop long term economic benefits for TO's.
- The process of constraints analysis is building the information necessary to identify risks and possible management strategies
- The process is based on extensive public consultation. This workshop is but one part of this.



3 Key Points: DEWHA (2)

2. North West Regional Marine Plan

- Provide comprehensive information about conservation values of the region to inform Commonwealth Minister's decision making
- Identify a representative network of Marine Protected Areas.



3 Key Points: DEWHA (3)

3. National Heritage Assessment

- National Heritage assessment is by an independent expert advisory body
- The National Heritage process requires extensive consultation with owners, occupiers and Indigenous people
- National Heritage listing recognises, celebrates and protects the outstanding / exceptional heritage values



Focus on Next Steps: DEWHA

1. Strategic Assessment
 - Short-listing of potential Hub Sites.
 - Comparative analysis of alternative options.
 - Commence development of detailed management arrangements including additional information as required.

2. North West Regional Marine Plan
 - NW profile (synthesis of background information about the region) anticipated release is August/September 2008.
 - Draft plan expected to be finalised in September 2009.

3. National Heritage Assessment
 - Assessment will follow the assessment process outlined in the presentation (1 page summary flow chart will be provided)

3 Key Points

Marine Environmental Experts

1. Need to focus on cause:effect pathways linking the pressures associated with
 - Construction
 - On-going operations to key benthic communities and marine fauna
2. Biological diversity in the Kimberley is high and a function of habitat diversity, substrate availability and diversity in energy regimes
3. Site selection should seek to avoid areas of high biological diversity and areas important for sustaining populations of marine fauna



Focus on Next Steps

1. Information on two new sites – Anjo Peninsula and Cape Voltaire
2. Scientific understanding of cause:effect pathways linking development pressures to benthic filter feeding communities is largely non-existent
3. Better understanding of the significance of the areas for marine wildlife is needed
4. Need to understand the natural variability over seasonal and interannual timescales



3 Key Points: Marine Environmental Experts (2)

1. Whales are unique and poorly understood in Kimberley
2. Construction and operational impacts on resting and breeding of whales - Wilson Point is a critical habitat
3. Out of the southern sites, Gourdon Bay is the least significant for whales



Focus on Next Steps

1. More whale research studies
2. Issue of feeding and krill
3. Little understanding of blue whales and other whale species



3 Key Points: Fisheries

Key Risks

1. Impacts on aquatic environment leads to impacts on marine ecosystems – changes the balance with impacts on existing legitimate human uses
2. Competition for infrastructure, labour and services
3. Ports, pests and people (more of each!)



Focus on Next Steps

1. Investment in Kimberley-wide management of aquatic environment – not just limited to coastal
2. Local infrastructure planning
3. Assessment and recognition of existing social, economic and cultural factors and opportunities



3 Key Points: General Environmental Working Group

1. Too early to make a decision; back to front process
2. Process around sites outside Kimberley coast needs to be defined
3. Greenhouse gas emissions plan required

3 Key Points: Gaffney Cline & Associates

1. All shortlisted sites are technically possible for a hub of varying size
2. Distance from gas source is the key consideration for hub location
3. Browse development in total is very big

Focus on Next Steps

1. All existing hubs have had a substantial government influence exercised throughout the applicable production sharing agreements or direct participation.
2. Australian state and federal governments do not have the same direct pressure.
3. How does a hub get initiated without a 'big stick' of some kind?

3 Key Points: Woodside Joint Venture

1. LNG developments are complex and require certainty to enable commitment to the effort needed to develop them.
2. Woodside is evaluating a number of development options and is supporting and providing data to the NDT effort to achieve a hub site on the Kimberley coast.
3. Of the sites on the NDT list, Woodside recommends those on the Dampier Peninsula as being technically preferable.



Focus on Next Steps

1. Selection of a site
2. Selection of a theme
3. More detailed data collection to further understand development requirements and mitigation measures

3 Key Points: Inpex Joint Venture

1. Marets is the most suitable location for a single operated LNG plant in the Kimberley to service Browse Basin gas
2. Inpex has done the most extensive, objective, scientific research in the Kimberley – all issues can be appropriately managed resulting in low environmental impact relative to other locations
3. Every site considered has disadvantages. Better describe the hub concept and these issues will clarify your decisions

Focus on Next Steps

1. Describe the 'hub' more accurately
2. Short list carefully
3. Single site – with justification



3 Key Points: Shell

1. Floating LNG is the leading option for development of Shell's Prelude gas field
2. FLNG is a niche solution for this small remote gas field which avoids the need to land gas in the Kimberley
3. This will be the first ever deployment of FLNG by Shell



Focus on Next Steps

1. Cost and schedule of FLNG facility
2. Viability of CO₂ sequestration
3. Impact of proposed ETS
4. Location of port upgrades for supply base



3 Key Points: Tourism

1. The key impacts
2. The growth of the tourism industry
3. The economic value of the tourism industry in the Kimberley



Focus on Next Steps

1. Tourism impact assessment
2. Presentation was primarily anecdotal – we need to quantify the industry

3 Key Points: Community Reference Group

1. Need for adequate resourcing and funding for local government and service providers
2. Need for expedient release of adequate land
3. Need to fully consider 'social fabric' elements on communities – not adequately covered by evaluation criteria

Focus on Next Steps

1. Detailed social impacts analysis
2. High level consultation with local government
3. Ensuring infrastructure and funding can adequately equip the region to handle the influx of people