CUMULATIVE IMPACTS: COORDINATION & COLLABORATION

19 November, Brisbane
An initiative of the SIA Forum – a network of SIA practitioners working in the resources sector.

For more information on the SIA Forum please contact Rachel Gibson (Rachel.Gibson@ghd.com)
## PROGRAM

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Minutes</th>
<th>Task</th>
<th>Speakers/Facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00 – 1.15</td>
<td>15</td>
<td>Registration</td>
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<tr>
<td>1.15 – 1.25</td>
<td>10</td>
<td>Introduction, housekeeping and format</td>
<td>Facilitator – <strong>Professor David Brereton</strong> (Director, Centre for Social Responsibility in Mining, SMI, University of Queensland)</td>
</tr>
<tr>
<td>1.25 – 1.40</td>
<td>15</td>
<td>Welcome &amp; Opening Remarks</td>
<td><strong>Hon. Stirling Hinchliffe MP</strong> (Minister for Infrastructure and Planning, Queensland Government)</td>
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<tr>
<td>1.40 – 1.45</td>
<td>5</td>
<td>Introduction to Speaker 1</td>
<td>Facilitator (Prof. David Brereton)</td>
</tr>
<tr>
<td>1.45 – 2.05</td>
<td>20</td>
<td>Cumulative impact management in the Surat</td>
<td><strong>Mal Hellmuth</strong> (General Manager, Strategic Economic Projects, Department of Employment Economic Development and Innovation, Queensland Government)</td>
</tr>
<tr>
<td>2.05 – 2.10</td>
<td>5</td>
<td>Introduction Speaker 2</td>
<td>Facilitator (Prof. David Brereton)</td>
</tr>
<tr>
<td>2.10 – 2.30</td>
<td>20</td>
<td>Opportunities to address cumulative impacts within the Queensland Government</td>
<td><strong>Lisa Pollard</strong> (Manager Strategic Regional Partnerships, Department of Employment, Economic Development and Innovation, Queensland Government)</td>
</tr>
<tr>
<td>2.30 – 2.35</td>
<td>5</td>
<td>Introduction to Speaker 3</td>
<td>Facilitator (Prof. David Brereton)</td>
</tr>
<tr>
<td>2.35 – 2.50</td>
<td>20</td>
<td>Coordinating data and methods in Social Impact Assessments</td>
<td><strong>Chris Sunderland</strong> (Senior Sociologist &amp; Consultation Specialist, URS Australia)</td>
</tr>
<tr>
<td>2.55 – 3.00</td>
<td>5</td>
<td>Introduction Speaker 4</td>
<td>Facilitator (Prof. David Brereton)</td>
</tr>
<tr>
<td>3.00 – 3.20</td>
<td>20</td>
<td>Launch: Cumulative Impacts – A Good Practice Guide</td>
<td><strong>Dr Daniel Franks</strong> (Centre for Social Responsibility in Mining, SMI, University of Queensland)</td>
</tr>
<tr>
<td>3.20 – 3.25</td>
<td>5</td>
<td>Update on format (break for afternoon tea)</td>
<td>Facilitator (Prof. David Brereton)</td>
</tr>
<tr>
<td>3.25 – 3.45</td>
<td>20</td>
<td>Afternoon Tea</td>
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</table>
| 3.45 – 4.45   | 60      | Panel discussion: Cumulative Impacts in Action; What works, what doesn’t, what is still needed to address them? | Facilitator (Prof. David Brereton)  
**Julie-Anne Braithwaite** (Manager Sustainable Development, Rio Tinto Coal Australia)  
**Cr Peter Maguire** (Mayor, Central Highlands Regional Council)  
**John Merritt** (Safety Health and Environment Specialist, Anglo American Metallurgical Coal)  
**Professor Chris Moran** (Director, Sustainable Minerals Institute, University of Queensland)  
**Ken Horton** (Manager EIS & Stakeholder, Origin Energy)  
**Phil Dash** (Assistant Coordinator-General, Department of Infrastructure and Planning, Queensland Government) |
| 4.45 – 4.50   | 5       | Wrap up                                                             | Facilitator (Prof. David Brereton)                                                                                                                                                                                   |
| 4.50 – 5.00   | 10      | Closing Remarks                                                      | **Professor Chris Moran** (Director, Sustainable Minerals Institute, University of Queensland)                                                                                                                        |
| 5.00 – 5.30   | 30      | Drinks and canapé                                                    |                                                                                                                                                                                                                       |
WELCOME

Hon. Stirling Hinchliffe MP
Minister for Infrastructure and Planning,
Queensland Government
CUMULATIVE IMPACT MANAGEMENT IN THE SURAT

Mal Helmuth
Department of Employment Economic Development and Innovation, Queensland Government
Managing the Impacts of Growth

Mal Hellmuth
General Manager
Strategic Economic Projects
Managing the Impacts of Multiple Major Projects

- How do we identify the likely growth from major projects?
- How does government organise itself to respond to growth?
1. How many projects

- What do they involve
  - how many workers – fly in fly out vs. resident
  - size of operation – annual volume/ tonnes extracted
  - export destination/ transport implications
  - number of gas wells etc
2. How big and when?

- Timing of commencement of operations
  - Construction
  - Operation – extraction and processing for export of resource
  - Implications of export volumes/ transport
Approaches that have been applied

- Western Australia
  - Pilbara Industry Community Council

- Alberta
  - Athabasca Oil Sands
Western Australia

- Western Australia’s Pilbara Region
  - Western Australian Planning Commission
    - Pilbara Framework (August 2009)
      - Comprehensive assessment of
      - Population Forecasts
  - Pilbara Industry Community Council
    - Employment and Population Projections 2008 & 2010
Pilbara Industry Community Council (PICC)

- **Pilbara Industry's Community Council (PICC)** is a unique concept established in 2006 whereby Pilbara Industries (BHP Billiton Iron Ore, Chevron Australia, Fortescue Metals Group, North West Shelf venture, Rio Tinto Iron Ore and Woodside) have committed to work in collaboration with the Australian, Western Australian, Local Governments and Pilbara communities to address two specific and inter-related priority outcomes:
  
  - The development of a shared vision and strategy to increase indigenous participation in employment in the Pilbara, including strategies to reduce gaps in education and training, health, and housing; and
  - Development of a shared vision and strategy in relation to the sustainability of Pilbara towns.
Pilbara Industry Community Council

- Combined resident, fly-in fly-out and construction workforce projections by location (2008)
Pilbara Industry Community Council

- Population Forecast (2008)
Western Australia Planning Commission

The WAPC supports the use of the PICC figures for planning purposes but notes that the WA Tomorrow (2005) figures should be used for predicting resident population growth in the region. (Source Regional Hotspots Land Supply Update November 2008)

**WAPC population projections (WA Tomorrow)**

<table>
<thead>
<tr>
<th>Local government</th>
<th>Projected popin. 2008¹</th>
<th>Projected popin. 2013³</th>
<th>Projected popin. 2018¹</th>
<th>Projected popin. 2028¹</th>
<th>Average annual growth 2008-2013 (per cent)</th>
<th>Average annual growth 2008-2018 (per cent)</th>
<th>Average annual growth 2008-2028 (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashburton</td>
<td>6 000</td>
<td>6 000</td>
<td>6 000</td>
<td>5 700</td>
<td>0.0</td>
<td>0.0</td>
<td>-0.3</td>
</tr>
<tr>
<td>East Pilbara</td>
<td>8 100</td>
<td>7 400</td>
<td>7 400</td>
<td>6 400</td>
<td>-1.8</td>
<td>-0.9</td>
<td>-1.2</td>
</tr>
<tr>
<td>Port Hedland</td>
<td>13 900</td>
<td>14 800</td>
<td>15 400</td>
<td>16 600</td>
<td>1.3</td>
<td>1.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Roebourne</td>
<td>15 800</td>
<td>17 000</td>
<td>18 600</td>
<td>20 900</td>
<td>1.5</td>
<td>1.6</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>Total Pilbara region</strong></td>
<td><strong>43 800</strong></td>
<td><strong>45 200</strong></td>
<td><strong>47 400</strong></td>
<td><strong>49 600</strong></td>
<td><strong>0.6</strong></td>
<td><strong>0.8</strong></td>
<td><strong>0.6</strong></td>
</tr>
<tr>
<td><strong>Total Western Australia</strong></td>
<td><strong>2 112 700</strong></td>
<td><strong>2 276 900</strong></td>
<td><strong>2 441 000</strong></td>
<td><strong>2 730 400</strong></td>
<td><strong>1.5</strong></td>
<td><strong>1.5</strong></td>
<td><strong>1.3</strong></td>
</tr>
</tbody>
</table>

¹ Western Australia Tomorrow, Western Australian Planning Commission (2005)
³ Projection for resident population
Pilbara Industry Community Council

• Resident and fly-in fly-out workforce projections (2010)
Pilbara Industry Community Council

- Resident, fly-in fly-out workforce projections
- We still didn’t get it right

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident</td>
<td>25%</td>
<td>31%</td>
<td>45%</td>
</tr>
<tr>
<td>FIFO</td>
<td>20%</td>
<td>60%</td>
<td>90%</td>
</tr>
<tr>
<td>Total employment</td>
<td>22%</td>
<td>46%</td>
<td>70%</td>
</tr>
</tbody>
</table>
Pilbara Industry Community Council

Alberta

- Oil Sands Industry
  - Multiple major projects with multiple proponents

- Treasury Board, Government of Alberta
  - Strategic Plan “Responsible Actions: A Plan for Alberta’s Oil Sands”

- The Oil Sands Developers Group – similar to PICC
Alberta

- **Responsible Actions: A Plan for Alberta’s Oil Sands**
- Identifies 6 Objectives
- **Objective 2**
  - Promote healthy communities and a quality of life that attracts and retains individuals, families, and businesses
  - Tool to assist in achieving this objective is CRISP

- **Comprehensive Regional Infrastructure Sustainability Plans (CRISP)** are a new long-term and collaborative approach to planning infrastructure in Alberta's three oil sands areas.
  - Each plan will establish a long-term blueprint for future infrastructure development
  - Based on possible future oil sands production rates and associated population growth to enhance the way provincial and municipal governments work and plan together.
  - Not completed yet
How do you plan for growth and other impacts in a region of uncertainty?
Major Projects in Regional Australia

Multiple Major Projects

• Impacts of multiple major projects
  – Population growth
  – Environmental impacts
  – Social impacts
  – Economic impacts
  – Transport impacts
Responding to impacts – how do you manage them?

• Available Tools include:
  – Planning for growth and change
    • Regional Planning
    • Local Government Community Plans
    • Planning Schemes
  – Addressing impacts of individual projects
    • Environment Impact Statements
      • Coordinator General
      • DERM
• Government agencies plan for growth through:
  – Programming infrastructure
  – Service planning and delivery
A Way Forward

• Need to:
  – Understand the range of major projects that are proposed
  – Have a common view of what growth is likely to happen and when this will happen
A Way Forward

• Require:
  – Probability assessment of future growth
    • Employment – construction/ operation/ fly in fly out / resident
    • Size of operation – annual volume/ tonnes extracted
    • Export destination/ transport implications
    • Number of gas wells etc
  – Understand constraints to growth
  – Acknowledge opportunity to remove constraints
  – Link to population and household forecasts
A Way Forward

- State government agencies
  - Test data against existing services and infrastructure
  - Assess emerging gaps and responses to identified need
  - Program delivery of services and infrastructure
  - Coordinate service infrastructure delivery across agencies
A Way Forward

• Local government
  – Opportunity to review Community Plans and service and infrastructure programs
  – Basis for identifying funding needs

• Commonwealth government
A Way Forward

• Monitoring
  – Measuring what is actually happening in affected region
    • Housing market – sale price; rental costs
    • Building and subdivision activity – residential and commercial/industrial
    • Other indicators e.g. school enrolments

• Annual Review
  – Assess activity level against probability assessment/ population & household forecasts
  – Identify change in major project activity
  – Identify need for review of probability assessment
The Answer

• A new way of identifying growth from multiple major projects

• A way for government agencies to program infrastructure and services using the same data for rapidly growing regions

• A responsive tool for reviewing and updating growth expectations for regions
Thank you

For further information:
Strategic Economic Projects, DEEDI
PO Box 15168, City East  QLD  4002
+61 7 3898 0441
LNG.Team@deedi.qld.gov.au
Http://www.lng.industry.qld.gov.au
CUMULATIVE IMPACTS: COORDINATION & COLLABORATION

OPPORTUNITIES TO ADDRESS CUMULATIVE IMPACTS WITHIN THE QUEENSLAND GOVERNMENT

Lisa Pollard
Department of Employment Economic Development and Innovation, Queensland Government
Opportunities to address cumulative impacts within the Queensland Government

Cumulative Impacts: Coordination and Collaboration
November 2010

Lisa Pollard
Office of the Director-General
Department of Innovation, Economic Development and Innovation
Queensland Government: Opportunities to address cumulative impacts

Today:

• Outline the challenges of cumulative impacts
• To quantify vs. agree?
• Sustainable Resource Communities Policy
• Surat Basin Future Directions Statement
• Social Impact Management Plans
Challenges of Cumulative Impacts

- Uncertainty and unevenness of development
- Accurate and timely data
- Determining a hierarchy of regional centres
- Coordination and integration
- Sustainable resource management (land, water)
- Building capacity and capability of local business
- Diversifying the economy
- Monitoring and managing cumulative impacts
- Maintaining liveability
To quantify vs. Agree?

Is it always advantageous to quantify cumulative impacts?

• The value of negotiated responsibility
• The outcomes of agreement for different parties
• Individual project approach vs. regional based assessment
Sustainable Resource Communities Policy

Policy themes:

• Strengthening the State Government’s coordination role
• Improved linkages between social impact assessment and regional planning
• Fostering partnerships with governments, industry and community
• Enhanced regulatory environment for social impact assessment
Surat Basin Future Directions Statement

• Achieve objectives through planning initiatives:
  - Preferred Settlement Pattern and Regional Planning Framework
  - Regional Transport Investigation
  - Resource Town Housing Affordability Strategy
  - **Social Impact Management Plans**
  - Regional Economic Strategy
  - Framework to manage Strategic Cropping Land
  - Workforce Development Plan
Social Impact Management Plans

• Cumulative impacts to be considered in mitigation strategies
• Included with the SIAs
• Defines cumulative impacts as *those potential impacts which may result from the proposal interacting with other projects in the local area or broader region*
So:

In meeting the challenges of cumulative impacts:

- Effective partnerships
- Comprehensive and integrated approach
- Building resilience in regional communities
- Adaptability and responsiveness
COORDINATING DATA AND METHODS IN SOCIAL IMPACT ASSESSMENTS

Chris Sunderland

URS Australia
SIA: Cumulative Impacts

Coordinating Data and Methods

Chris Sunderland
Senior Sociologist & Consultation Specialist, URS
Contents

- Purpose of cumulative impact assessment in SIA
- Standardisation – templates and information reporting – when are each appropriate?
- The need for a central database
- What this all means
Purpose

• It can be difficult to determine the intended target audience from a regulatory perspective for cumulative impacts assessment. Is it:
  – Strategic EIS/SIA tool
  – Indicator of whether project approval should be given
  – Only be used to inform stakeholders

• To enable the project proponent, government and service providers to understand the potential socioeconomic effects associated with multiple projects in a study area
The purpose of this section is to provide a summary of the cumulative impacts from the project and to provide a description of these cumulative impacts both in isolation and in combination with those of existing or proposed project(s) publicly known or advised by DIP to be in the region, to the greatest extent practicable. Cumulative impacts should be assessed with respect to both geographic location and environmental values. The methodology used to determine the cumulative impacts of the project should be presented, detailing the range of variables considered, including where applicable, relevant baseline or other criteria upon which the incremental aspects of the project have been assessed.
Purpose - What it really says

- Provide a summary and description of the cumulative impacts
- In isolation and in combination with existing and planned projects
- Assessed with respect to both geographic location and environmental values
- Present the methodology
  - Range of variables considered
  - Relevant baseline or other criteria upon which the incremental aspects of the project have been assessed
Purpose - Assumptions and Limitations

- Information is based on other project assumptions and timelines (which may change)
- Estimates reflect available information
- Results are an indication of what could occur if all things remain the same
- **Key Message** – workforce information is indicative of the current situation and should not become a condition. There needs to be some flexibility
Standardisation

- Increases confidence in the data
- Increase confidence in conclusions
- Can inhibit innovation
- Can inhibit some analysis
Standardisation – Relating to Key SIA Inputs

- Workforce Profile

<table>
<thead>
<tr>
<th>Month</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>1000</td>
</tr>
</tbody>
</table>
Standardisation - Workforce Numbers

![Graph showing workforce numbers over months for Project A. The graph indicates a peak in workforce numbers around the 6th month, with a gradual decline thereafter.]
Standardisation - Workforce Numbers

- **Workforce Numbers**
  - **Project A**
  - **Project B, C and D**

### Workforce Numbers by Month
- **Month**: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19
- **Workforce Numbers**: 0, 500, 1000, 1500, 2000, 2500, 3000, 3500
Standardisation - Workforce Numbers

![Graph showing workforce numbers over time for Project A, Project B, C and D, and all projects combined.](www.ap.urscorp.com)
Standardisation - Workforce Requirements

• Worker numbers over time - covered
• Worker sourcing
  – Local versus Non-local
  • Percentage or value
Standardisation - Workforce Requirements

• Worker numbers over time - covered
• Worker sourcing - covered
• Hiring and training targets
  – Local
  – Gender
  – Indigenous
  – Disabled
  – Equal opportunity, etc.
Standardisation - Accommodation & Logistics

- Where will workers be housed and why?
- How they will commute?
- Proportions in various accommodation types?
- Facilities, services and amenities?
- Primary services (water, sewerage, electricity, communications etc)?
Standardisation - Programs & Policies

- Local Procurement
- Community Access
- Code of Conduct
- Community Investment/Development
- Sustainability Principles
- Corporate Social Responsibility Principles, etc.
Need For A Central Database

- Due to sensitivities DIP or equivalent could provide the raw data or produce figures and qualifying statements about projects and timelines for analysis
- Proponent’s tasked with data analysis and updating
What does this all mean?

- More concise workforce profile sections
- More concise analysis due to consistency of data
- Less time spent on soliciting information for the workforce section – it is known what is needed and why
How Is This Achieved?

- Terms of Reference
- Workforce standardisation
  - Who does this help?
  - How?
- Mitigation and management
  - Needs to be flexible and adaptive
  - Should develop benchmarks and thresholds
  - Should be inclusive of key stakeholders
Questions?
LAUNCH: CUMULATIVE IMPACTS – A GOOD PRACTICE GUIDE

Dr Daniel Franks
Centre for Social Responsibility in Mining, Sustainable Minerals Institute,
University of Queensland
Cumulative Impacts – A Good Practice Guide

Dr Daniel Franks
Professor David Brereton
Professor Chris Moran
Section 1 Introduction

Section 2 Understanding Cumulative Impacts

Section 3 Assessing Cumulative Impacts

Section 4 Managing Cumulative Impacts

Section 5 Monitoring & Reporting Cumulative Impacts

Section 6 Conclusion
Section 1 Introduction

- Practical resource targeted for industry and government
- Focussed on local and regional scale
- Case study rich – highlight examples and outline methods
- Written to be of wider interest to the mining and petroleum industries
- Prepared by the Sustainable Minerals Institute with the support of the Australian Coal Association Research Program
- Guide builds on earlier work in the Hunter Valley, a study tour to Canada, and simultaneous research for DEEDI, Isaac Regional Council, and the National Water Commission
Cumulative impacts are the successive, incremental and combined impacts (both positive and negative) of one or more activities on society, the economy and the environment.
What are cumulative impacts?
Cumulative impacts are distinguished from other impacts because they:

- Can’t be understood simply by focusing on the activities of an individual mining/petroleum development
- Require an understanding of the receiving environment (e.g. town, airshed, watershed)
- In many cases they can only be addressed through collaboration.
## What are cumulative impacts?

<table>
<thead>
<tr>
<th>EXAMPLES OF NEGATIVE IMPACTS</th>
<th>EXAMPLES OF POSITIVE IMPACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ Price inflation (e.g. housing and rents) and the disproportionate impacts on residents not employed in the mining industry.</td>
<td>▶ Increased employment and economic investment.</td>
</tr>
<tr>
<td>▶ Overloading of existing social services (e.g. childcare, healthcare and education).</td>
<td>▶ Regional and community development benefits from mine community investments.</td>
</tr>
<tr>
<td>▶ Reduced visual amenity (especially in high density mining regions).</td>
<td>▶ Local business development from mine procurement.</td>
</tr>
<tr>
<td>▶ Perceived and real loss of community identity due to demographic change.</td>
<td>▶ Greater royalties and taxes.</td>
</tr>
<tr>
<td>▶ Increased noise and vibration from blasting and hauling.</td>
<td>▶ Road and infrastructure upgrades.</td>
</tr>
<tr>
<td>▶ Reduced water quality (e.g. saline discharge into rivers).</td>
<td>▶ Investment in biodiversity offsets and rehabilitation (on and off lease).</td>
</tr>
<tr>
<td>▶ Increased dust and associated air quality issues.</td>
<td>▶ Increased awareness of health and safety.</td>
</tr>
<tr>
<td>▶ Reduced water quantity (groundwater draw and water table impacts from multiple mines and industries).</td>
<td>▶ Population increases that create a critical mass for better services and infrastructure (e.g. schools, and sporting teams).</td>
</tr>
<tr>
<td>▶ Greenhouse gas emissions, including fugitive emissions.</td>
<td>▶ Development of human capital (skills, employment and training).</td>
</tr>
<tr>
<td>▶ Traffic congestion and road degradation.</td>
<td></td>
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<tr>
<td>▶ Vegetation clearing and loss of biodiversity.</td>
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</tbody>
</table>
## Section 3 Assessing Cumulative Impacts

<table>
<thead>
<tr>
<th>LEGISLATION/TERMS OF REFERENCE</th>
<th>INDICATIVE EXTRACT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMMONWEALTH</strong></td>
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<tr>
<td>Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (March 2010)</td>
<td>No specific mention of cumulative impacts. Impact is defined to include direct, indirect and reasonably foreseeable consequences of actions. Federal court rulings have interpreted the act to include cumulative impacts. The ‘Hawke’ review of the EPBC act has signalled that cumulative impacts will be a focus of reform.</td>
</tr>
<tr>
<td>LEGISLATION/TERMS OF REFERENCE</td>
<td>INDICATIVE EXTRACT</td>
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<td>--------------------------------</td>
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<tr>
<td><strong>QUEENSLAND</strong></td>
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<tr>
<td>Qld Environmental Protection Act 1994</td>
<td>The Act makes no distinction between cumulative or other impacts, but expects an EIS to assess all such impacts. The draft TOR must be ‘in the approved form.’ In practice this means that project TOR must be based on the generic TOR developed by the Department of Environment and Natural Resource Management.</td>
</tr>
</tbody>
</table>
| Qld Department of Environment and Resource Management Generic ToR (2010) | The generic TOR does not require a separate section for cumulative impacts, but rather requires them to be assessed in issue-related sections, such as those for ecology, social impacts, or noise. Indicative extracts from the generic TOR are:  
  "Describe any cumulative impacts on environmental values caused by the project, either in isolation or by combination with other known existing or planned development or sources of contamination."  
  "The cumulative impacts of the project must be considered over time or in combination with other (all) impacts in the dimensions of scale, intensity, duration or frequency of the impacts."  
  "Where impacts from the project will not be felt in isolation to other sources of impact, it is recommended that the proponent develop consultative arrangements with other industries in the proposal's area to undertake cooperative monitoring and/or management of environmental parameters. Describe such arrangements in the EIS." |
## Cumulative impact requirements

<table>
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<tr>
<td><strong>QUEENSLAND</strong></td>
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<tr>
<td>Qld State Development and Public Works Organisation Act 1971.</td>
<td>The Act makes no distinction between cumulative or other impacts. Act requires compliance to the ToR finalised by the Coordinator General.</td>
</tr>
</tbody>
</table>
| Qld Coordinator General. Generic ToR (2010) | ‘The EIS should summarise and describe cumulative impacts ‘in combination with those of existing or proposed project(s) publicly known or advised by [the Department of Infrastructure and Planning] to be in the region, to the greatest extent practicable. Cumulative impacts should be assessed with respect to both geographic location and environmental values. The methodology used to determine the cumulative impacts of the project should be presented, detailing the range of variables considered, including where applicable, relevant baseline or other criteria upon which the cumulative aspects of the project have been assessed. ‘The EIS should provide a comparative analysis of how the project conforms to the objectives for ‘sustainable development’....’This analysis should consider the cumulative impacts (both beneficial and adverse) of the project from a life-of-project perspective, taking into consideration the scale, intensity, duration and frequency of the impacts to demonstrate a balance between environmental integrity, social development and economic development.’

‘The SIA will include an evaluation of the potential cumulative social impacts resulting from the project including an estimation of the overall size, significance and likelihood of those impacts. Cumulative impacts in this context is defined as the additional impacts on population, workforce, accommodation, housing, and use of community infrastructure and services, from the project, and other proposals for development projects in the area which are publicly known or communicated by [the Department of Infrastructure and Planning], if they overlap the proposed project in the same time frame as its construction period.’ |
## Cumulative impact requirements

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<tr>
<td><strong>NEW SOUTH WALES</strong></td>
<td></td>
</tr>
<tr>
<td>NSW Environmental Planning and Assessment Act 1979.</td>
<td>The Act makes no distinction between cumulative or other impacts (except in environmental assessment of fishing activities).</td>
</tr>
</tbody>
</table>
| NSW Department of Urban Affairs and Planning (2000). Coal Mines and Associated Infrastructure. EIS Guideline. | - ‘(a) identify other existing or proposed activities in the area with similar environmental impacts or which are likely to impact on the same elements of the environment (e.g. clearance of the same type of habitat)’  
- ‘(b) assess the extent to which the environment affected by the proposal is already stressed’  
- ‘(c) identify any likely long-term and short-term cumulative impacts, such as air quality, noise or traffic disturbance, visual impacts, surface water and groundwater issues, public health; or loss of heritage items, vegetation or fauna habitat’  
- ‘(d) consider the receiving environment’s ability to achieve and maintain environmental objectives’, and  
- ‘(e) consider options for integrating operations with adjoining mines to obtain operational synergies, reduce costs, prevent environmental impacts or lessen land degradation (e.g. spoil transfer, wastewater exchange for reuse, integrated rehabilitated landforms, joint rail or road haulage works, joint coal handling or treatment facilities, integrated and shared monitoring networks and programs).’ |
Forecasting

Oil Sands Developers Group
Fort McMurray, Alberta, Canada

- Industry representative group formed to respond to cumulative impacts.
- Commission industry forecasting surveys to assist planning of social and physical infrastructure.
- Surveys scope current and future production, expenditure, employment, social and environmental investments.
- Data reported in anonymous and aggregated form – overcome confidentiality & commercial issues
Section 4 Managing Cumulative Impacts

- Proactive management of the timing and location of developments
- Collective management of data
- Facilitation of synergies
- Multi-stakeholder monitoring
- Regional and strategic planning
- Co-ordination of response to cumulative impacts of high concern to stakeholders
- Pooling of resources to support specific initiatives and programs
- Advocacy on common issues
- Information exchange, forums, networking

THE CUMULATIVE IMPACT MANAGEMENT HIERARCHY
Multi-stakeholder monitoring

Section 5 Monitoring & Reporting
Cumulative Impacts

Regional Aquatics Monitoring Program and Wood Buffalo Environmental Association in Alberta

- Real time regional monitoring networks.
- Respond to health and environmental issues associated with multiple oil sands developments.
- Multi-stakeholder initiative – industry, government & civil society (environment, community, indigenous).
- Independent organisations – industry & government funded.
Section 6 Conclusion

1. Determine the key impacts of concern to stakeholders
2. Define the system to be understood
3. Determine how impacts are accumulating
4. Determine what actions are contributing to the generation of impacts and by whom
5. Review available strategies
6. Consider whether collaborations are necessary to pursue strategies
7. Monitor priority receptors and agree on thresholds and indicators with stakeholders
8. Report and communicate to stakeholders


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CUMULATIVE IMPACTS:
COORDINATION & COLLABORATION

AFTERNOON TEA
3:25-3:45
CUMULATIVE IMPACTS: COORDINATION & COLLABORATION

PANEL DISCUSSION

Cumulative Impacts in Action:
What works, what doesn’t, what is still needed to address them?
Cumulative Impacts

Cr Peter Maguire
Mayor-Central Highlands Regional Council
Friday 19\textsuperscript{th} November
1-Environmental

2-Social

3-Economic

All of Equal Importance
Resource Sector/Coal Mines

Have a positive and negative effect on towns/regions
Localised Impacts

Dust, Noise, Groundwater, Surface Water, Traffic
Social Issues

Housing Affordability, Housing Shortages, Childcare, Healthcare, Education
Regional Impacts

Roads, Highways
Loss of GQAL, Strategic Cropping Land
Positive Impacts

Extra Revenue
Local Government Rates,
State Govt Royalties @ Taxes
Federal Government Taxes
Employment Opportunities
Economic Investment
Support to Communities
Impacts Arise from combining one or more operations or expansions

Difficulties arise with companies concerns over their Business Interests-Not wishing to divulge Information to competitors
Galilee Basin

Economic @ Social Impact Study
August 2010
Talk about Cumulative Impacts
Thank You
CUMULATIVE IMPACTS: COORDINATION & COLLABORATION

PANEL DISCUSSION

Cumulative Impacts in Action:
What works, what doesn’t, what is still needed to address them?
CUMULATIVE IMPACTS: COORDINATION & COLLABORATION

CLOSING REMARKS

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