

Social Environment

This chapter describes and evaluates the social environment in the Project area, including:

- Baseline (existing environment)
 - Regional community structures and community vitality (including demography, health, education and social well-being, access to services and housing, etc).
 - Estimate local employment including a breakdown of skills/trades required and specific opportunities for skills development.
- Potential impacts
 - Identify opportunities for training and employment during construction of the project and how this would be structured, managed and implemented.
 - Identify opportunities for local industry and indigenous/non-indigenous workforce participation in the construction and operation of the project.
 - Outline possible future benefits for the community following construction.
 - Discuss the potential negative social impacts that could arise from the project including the impacts of the construction/operation and its workforce/maintenance teams on affected landowners and communities, recreational users, local health services, etc.
- Safeguards, Management & Monitoring
 - Identify measures to reduce negative impacts and maximise benefits.

Stakeholder consultation and the initial key stakeholder issues are presented under Chapter 24.

23.1 Existing Conditions

23.1.1 Data Sources and Limitations

The Australian Bureau of Statistics (ABS) Census from 2001 and 2006 has been used as key sources of data for this report. Unless otherwise stated, data is based on the place of usual residence on census night.

Data has been collected at the statistical sub-division (SSD) level for Darwin City and Palmerston East-Arm. Data has also been collected for the statistical division (SD) of Darwin, which includes Darwin City, Palmerston-East Arm and the more rural area of Litchfield (Figure 23-1). For simplicity, this area will be referred to as the Darwin region. In addition, data has been collected at the state level for the NT, and also for Australia, for comparison with averages.

As the last census was conducted in 2006, the data is becoming out of date. Supplementary data has been sought to confirm trends or identify possible deviations from the statistics in the census. Any additional information has been obtained through updated statistics through the ABS or government departments, websites and consultation. While there remain some limitations to this information given that it will be based more strongly on estimations and opinions, it does provide a more current indication of the baseline conditions within the Darwin region. In some cases, such as for education and training, statistics will not be available until the 2011 census.

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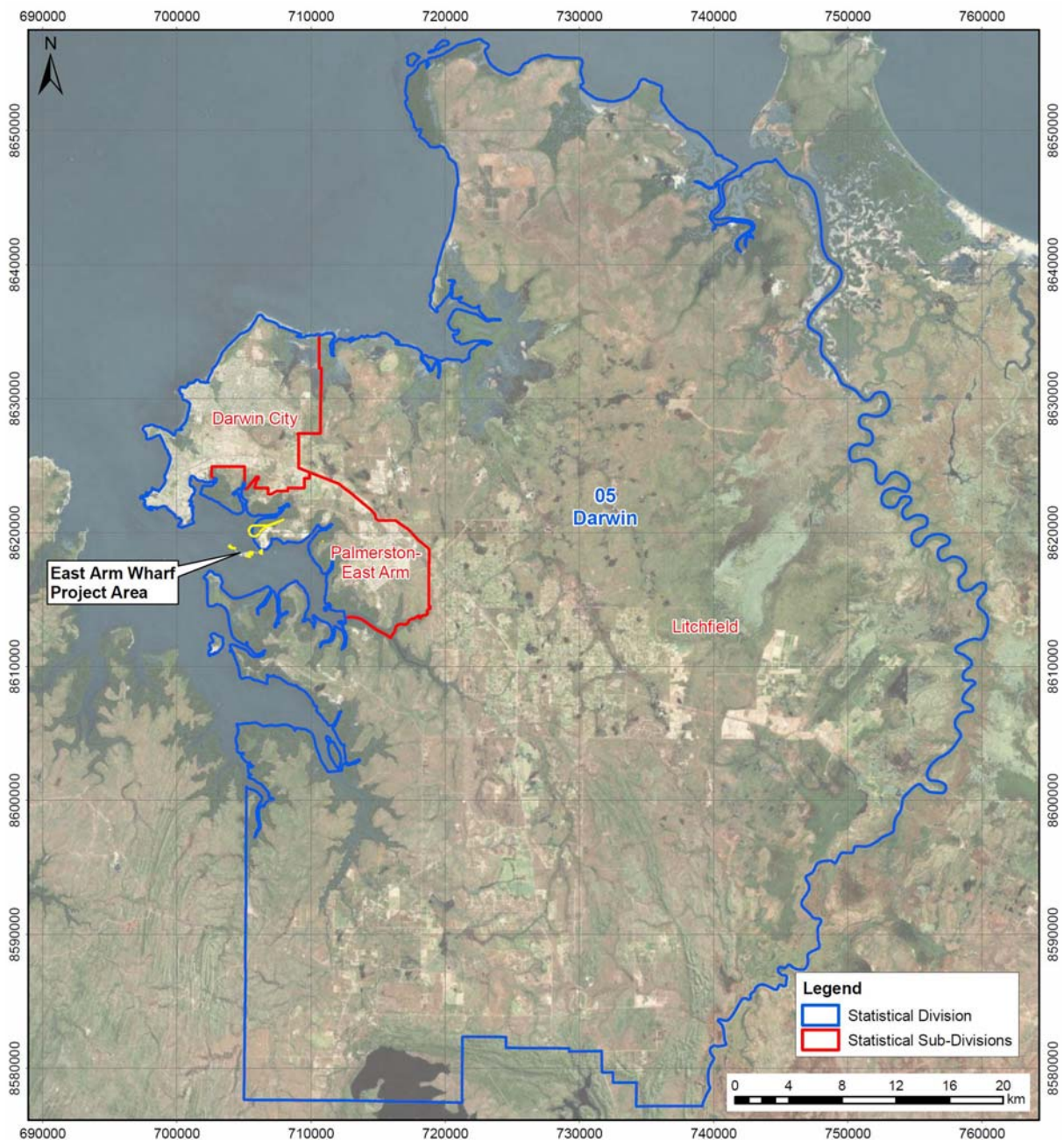


Figure 23-1 Statistical Areas

23.1.2 Description of Local Area

EAW is located in an industrial area between Darwin and Palmerston, which are the two main settlements within the Darwin region. Both the cities of Darwin and Palmerston have a youthful and multicultural population.

As the state capital of the NT, Darwin is the commercial and administrative centre for the region. Darwin was established in 1869 as Palmerston, and was renamed as Darwin in 1911.

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Darwin has had a number of significant historical events and links, such as the establishment of indigenous cultural sites, Japanese World War II bombings and Cyclone Tracy in 1974. The main indigenous group within the region, and Darwin's first inhabitants, are the Larrakia people. Darwin's economy has been based on the Australian Defence Force and mining industries, and more recently on tourism. Darwin also has a thriving pearl farming industry, which is Australia's second largest aquaculture activity and has more than a century of history in the region. (OMG and Fairfax Digital, 2011; Darwin City Council (DCC), 2011a)

Palmerston has been established more recently as a satellite town for Darwin and is the second largest city in the Northern Territory. It is closely located to Darwin, being approximately 20 km south of the city. The land was acquired for the town in 1971 and housing was established within the early 1980s. Palmerston has experienced rapid growth the highest growth within the Northern Territory over the last two decades (ABS, 2010).

The Darwin region experiences a dry season from April to October, and a wet season from November to March. Darwin and surrounds are renowned for natural attractions and outdoor activities. Fishing in particular is very popular with both the locals and tourists, and people can often be seen undertaking this activity on the harbour foreshore.

23.1.3 Demography

The population of the Northern Territory, Darwin region, Darwin City SSD, and Palmerston-East Arm SSD are summarised in Table 23-1.

Population

Table 23-1 Population in the Darwin Region

	2001	2006	2009 Estimate
Darwin City	64,341	66,291	75,900
Palmerston - East Arm	21,192	24,146	30,000
Darwin Region	100,255	105,991	124,800
Northern Territory	188,075	192,898	225,900

Source: ABS, 2002; ABS, 2007; ABS, 2010

Darwin Statistical Division (SD) and the remainder of the NT are experiencing continuing population growth. The estimated resident population of the NT at June 2009 was 225,900, showing an annual increase of 5,400 people (2.5%). Over the same period, the population of Darwin SD increased by 3,700 people (3.1%) to 124,800 people. Darwin SD was one of the top ten fastest growing SDs in Australia in 2008-09 (ABS, 2010).

Between June 2008 and June 2009, Darwin City had the largest population growth of all SSDs in the NT, and increased to 75,900 people. Over the same period, Palmerston-East Arm also experienced rapid growth and increased by 4.5% to 30,000 (ABS, 2010).

Age and Sex Ratios

Within the 2001 and 2006 census, males outnumber females in the Darwin City SSD and Palmerston-East Arm SSD, and more generally within the Northern Territory, by 3-4%; male populations are

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around 51-52% and female populations are around 48%. The higher proportion of males is consistent across age ranges. Age ratios have experienced little fluctuation between 2001 and 2006. Darwin has a young population; 25% is under 14 years of age and 40% is under 24 years of age. Approximately 45% of the population are aged between 25 and 54. There has been some change in the number of people aged between 55 and 64, which has increased by 2.25% between 2001 and 2006, and a corresponding decrease in the number of people aged between 25 and 54 over the same period (ABS, 2002; ABS, 2007).

Ethnic Diversity

Within the Darwin region, the majority of the population was born in Australia, representing approximately 71% of the total population. This figure has remained stable between the 2001 and 2006 census. As of 2006, other groups that are more highly represented within the population include those from England, New Zealand, Philippines, Greece and East Timor. Palmerston - East Arm SSD is similar, and also has some higher population representation from Papua New Guinea.

As of 2006, the most prevalent language spoken at home within the Darwin region is English at 77%, which indicates that while people may have been born in Australia, they also identify with a certain ethnic group. The next highest frequency of language spoken at home is Greek at 2.25%, followed by Indigenous languages. There is also minor representation (less than 1%) of Indonesian, Vietnamese, Cantonese, either Tagalog or Filipino and Italian. Overall there are approximately 100 different ethnic groups living in the Darwin region (ABS, 2002; ABS, 2007).

Indigenous Population

Based on the 2006 census statistics, the Indigenous population, including Torres Strait Islanders, was 9.7% of the population. Indigenous women have a marginally higher population representation than men, at around 1% on average over the census period. Darwin has a higher than average indigenous population (ABS, 2007).

The traditional owners of the Darwin area are the Larrakia people. There are a number of traditional owner representative groups, including the Larrakia Development Corporation and the Larrakia Nation Aboriginal Corporation. More broadly, the Northern Land Council (NLC) is 'a statutory authority established under the Land Rights Act to represent the Aboriginal people in the top end of the Northern Territory' (NLC, 2003).

Visitors

Tourism NT monitors the number of visitors to Darwin, the average length of stay and the purpose of their visit. Despite previous growth, visitor numbers have decreased over the last assessment period up to December 2010. Approximately 686,000 people visited the Darwin tourism region in 2010 and the average length of stay was 7.5 nights. This is a decrease of 10.4% of visitors from the previous year, though the average length of stay has increased by a night (Tourism NT, 2010).

It should be noted that the Darwin tourism region from which these statistics are derived is somewhat broader than the Darwin SD and therefore the average length of stay within the Darwin SD may be less (however the number of visitors is likely to be similar, assuming that nearly all visitors to the Darwin tourism region will stay in Darwin for part of their visit).

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Households

The 2006 census indicates that Palmerston – East Arm SSD has a higher proportion of family households than Darwin City SSD, being 69.1% of the total occupied private dwellings in the region. This is in line with the national average of 67.4%. Darwin City has 59.8% family households and a higher proportion of lone person households and group households than Palmerston - East Arm.

Darwin City lone person households are in line with the national average, but group households are around 2.4% higher. Lone person households in Palmerston - East Arm are 6.5% lower than the national average, but group households are in line (ABS, 2007).

Family Structure

Family structure within Darwin City SSD, Palmerston - East Arm SSD, and the Darwin region has remained relatively stable over the 2001 and 2006 census. There has been an increase in the total families in line with population growth, but, despite a slight decrease, couple families with children maintain the highest representation at around 42.6% for Darwin City and 48% for Palmerston - East Arm.

Darwin City has experienced a higher decrease in couple families with children than Palmerston - East Arm, but the average decrease of 2.85% has been absorbed by either couple families without children or single parent families, which have increased in both Darwin City and Palmerston - East Arm (ABS, 2002; ABS, 2007).

Population Stability

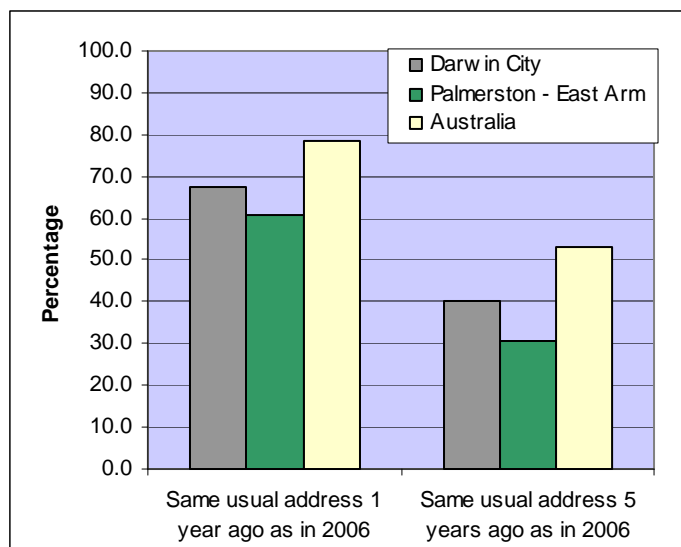
At the time of the last population census in 2006, Darwin City SSD and Palmerston - East Arm SSD showed higher levels of population movements than the national average (refer Figure 23-2). Over a five year period, 30% of people had lived at the same Palmerston - East Arm address and 40% had lived at the same Darwin City address.

Both Palmerston- East - Arm and Darwin City have experienced population growth, so this is a consideration as to whether the variance is due to transient populations, with significant movement, or a growing population that will remain within the general area. Certainly a higher percentage had lived at the same address as 1 year prior, than 5 years prior (ABS, 2007).

However, of the people who had lived at a different address, a far lower percentage in Darwin City and Palmerston - East Arm had previously lived within the same Statistical Local Area as compared with the Australian average. This occurred at both the 1 and 5 year intervals. For both areas the percentage was approximately 2-3%, but the Australian average was 5% for 1 year ago, and 11% for 5 years ago.

This indicates that Darwin residents are more likely to be moving from outside the Darwin region, relative to the overall Australian population. Of the people who lived at a different address five years prior, quite a high proportion (21% for Darwin City and 27% for Palmerston - East Arm) lived within the Northern Territory before moving to their 2006 location (ABS, 2007).

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Source: 2006 Census Basic Community Profiles, based on place of usual residence (ABS, 2007)

Figure 23-2 Population Stability

23.1.4 Health

The DHF Corporate Plan for 2009–2012 (DHF, 2009) has identified that NT has a small population yet many complex health challenges. This includes the nation's highest per capita rate of hospital admissions. Indigenous people are noted as having a higher burden of health issues.

Key illnesses and underlying causes

The DHF (2009) Corporate Plan health priorities are based on existing prevalent conditions and seek to: 'improve approaches to reducing risk factors for chronic disease (low birth weight and infant malnutrition, smoking, poor diet [obesity], physical inactivity, alcohol abuse) through primary health care programs and activities'.

The plan seeks a more proactive approach by focussing on health promotion, health protection and prevention across the life span, rather than just detection of health problems. This approach includes taking action on the social determinants of health to promote equitable health outcomes.

23.1.5 Education

At 2006, 44% of the Darwin City SSD population had completed year 12 or equivalent. This is slightly higher than the national average of 42%. Palmerston - East Arm SSD recorded a lower level of completion of year 12 or equivalent, at 33%. In the responses to the highest level of education attained, nearly twice the number of people in Darwin (30.9%) had completed university education as compared to Palmerston-East Arm (15.8%).

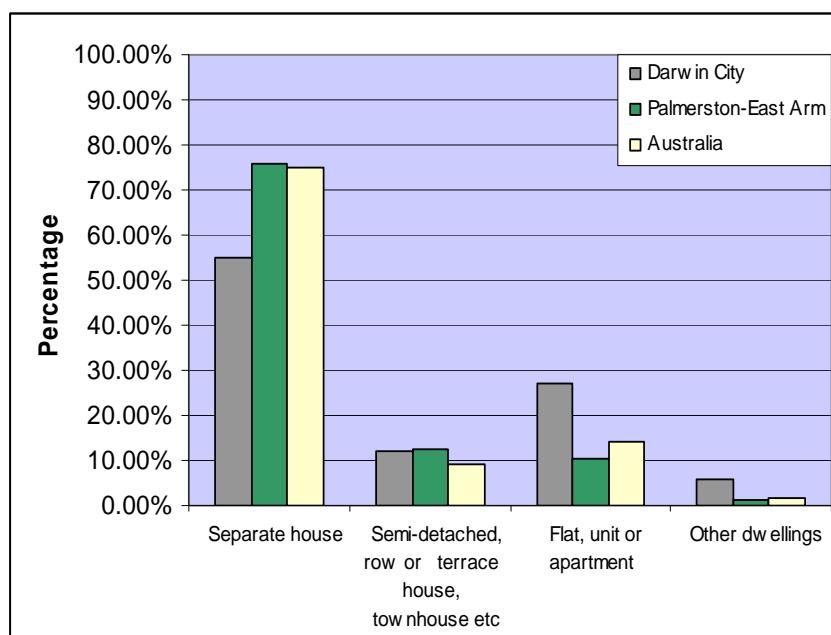
This includes post graduate and bachelor degrees, and graduate diplomas. Palmerston - East Arm had a strong representation of people who had attained certificate level education at 38.7%, compared to 30.4% for Darwin City. This higher level of educational attainment in Darwin could reflect the fact that it is the CBD for the region (ABS, 2007).

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23.1.6 Housing

Types of Housing

At 2006 there were 26,390 and 8,295 occupied private dwellings in Darwin City SSD and Palmerston - East Arm SSD respectively. Of these Palmerston – East Arm had a far higher proportion of separate houses and Darwin had a correspondingly higher proportion of flats, units or apartments (ABS, 2007), as shown in Figure 23-3.



Source: ABS Census Quick Stats 2006, based on place of usual residence (ABS, 2007)

Figure 23-3 Dwelling Type Representation for Darwin, Palmerston-East Arm, and Australia

Housing Availability

Housing availability has been notably constrained in Darwin and Palmerston over the last few years. One of the reasons cited for this is a delay in the release of land for new developments. Furthermore, due to the growing population, new land releases tend to maintain the status quo – limited available housing, rather than addressing future need (pers. comm. Real Estate Institute of Northern Territory (REINT)).

There has been some recent improvement in housing availability. As at September 30 2010, house vacancy rates were at 1.5% in Darwin and 2.9% in Palmerston. Unit vacancy rates were at 2.6% in Darwin and 3.2% in Palmerston. Both of these rates increased over the previous year, indicating some improvement in the availability of housing in within the region. Furthermore, the cost of rental houses and units has declined over the year up to September 2010 in both Palmerston and Darwin (REINT, 2010).

This recent improvement is likely to be temporary as there are a number of significant new developments pending approval that would attract higher numbers of people to the region (pers. comm. REINT).

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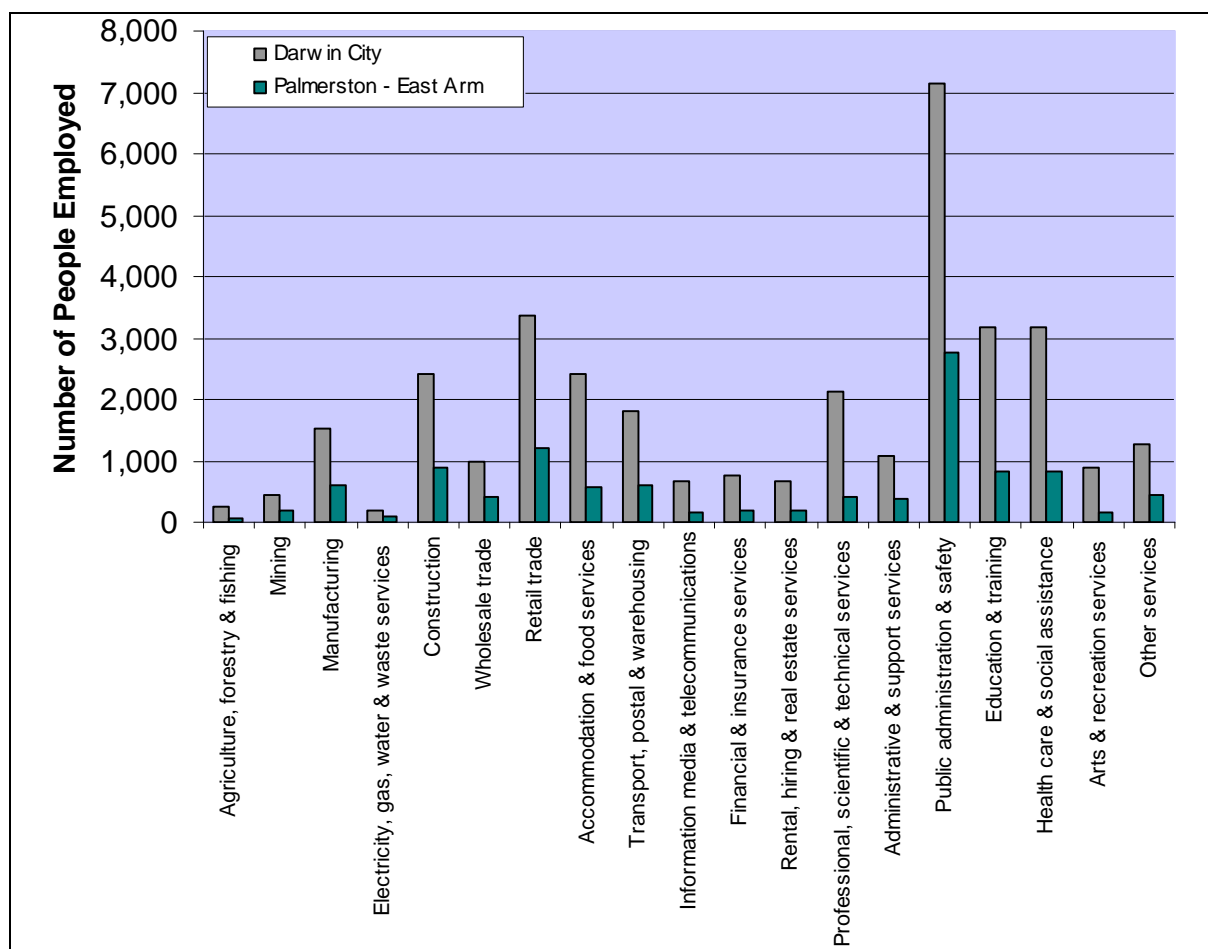
Other Accommodation Availability

Anecdotal evidence suggests that short term accommodation is less available during the dry season from April to September, which is a more popular time for people to visit Darwin. Occupancy rates for the Darwin tourism region, which includes Litchfield and outlying areas, were at 90% during the September 2010 quarter (ABS, 2011).

23.1.7 Industry of Employment, Labour Force and Income

Industry of employment

The main industry of employment in Darwin City SSD and Palmerston – East Arm SSD is in public administration and safety (Figure 23-4), which represents 22.3% and 24.7% of the workforce respectively. It is noted that this category includes employment in the Australian Defence Force. The next highest representation for both areas is in the retail trades. Other significant industries of employment include construction, health care and social assistance and education and training (ABS, 2007).



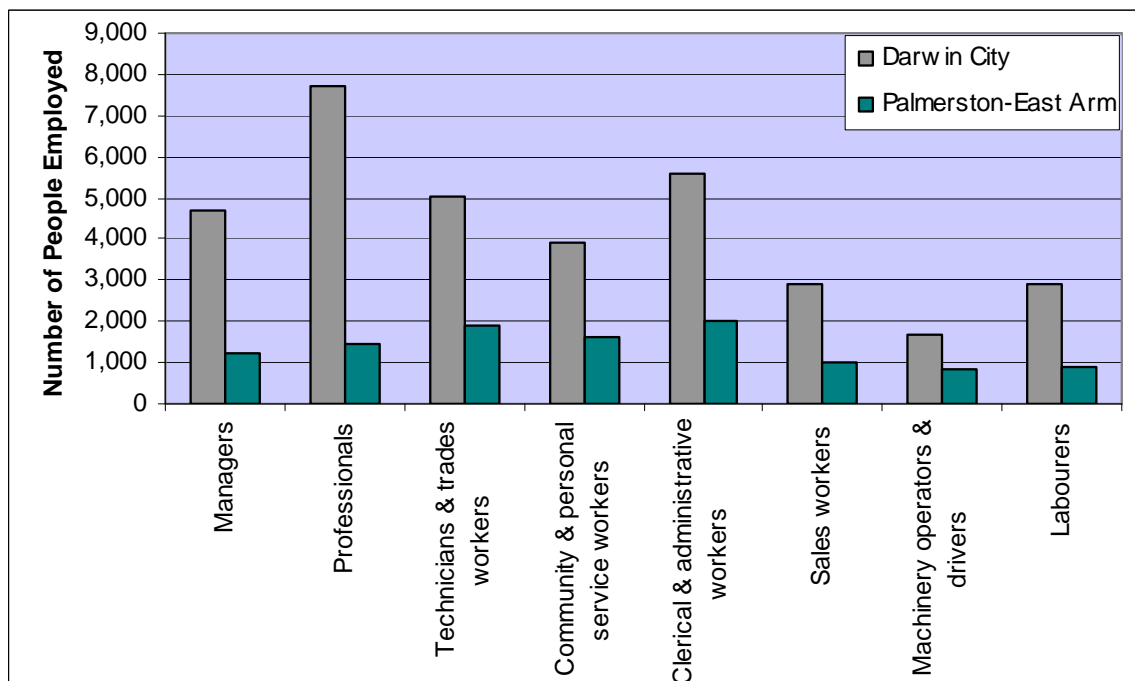
Source: ABS 2006 Census Basic Community Profiles, based on place of usual residence (ABS, 2007)

Figure 23-4 Industry of Employment

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Occupations of Employment

In the 2006 census, the highest occupation of employment in the Darwin City SSD was represented by professionals (Figure 23-5), at 22%, followed by clerical and administrative workers at 16.0% and technicians and trade workers at 14.3%. Within Palmerston - East Arm SSD, the highest representation was clerical and administrative workers at 18.2%, followed by technicians and trade workers at 17.2% and community and personal service workers at 14.6% (ABS, 2007).



Source: ABS 2006 Census Basic Community Profiles, based on place of usual residence (ABS, 2007)

Figure 23-5 Occupations of Employment

Labour Force

The unemployment rate in the Darwin region has consistently been lower than the state and national average. In the January-March 2009 quarter, the Darwin City SSD had an estimated unemployment rate of 1.8%, Palmerston - East Arm SSD had a rate of around 2%, and the Darwin region was 1.9%. These rates were significantly lower than that of the NT, which was recorded at 6.3% during the same period. More recently, however, the NT unemployment rate has increased to 2.8% as of November 2010 (ABS, 2009; DBE, 2011).

Within the 2006 census, the Indigenous labour force had a higher availability rate than the average for the Darwin region, but experienced decreases in unemployment between 2001 and 2006, where the unemployment rate fell by 6.6% (ABS, 2007).

Skills Shortages

The NT Labour Economics Office, under the auspices of the Department of Education, Employment and Workplace Relations (DEEWR) publishes the *Skills Shortages: Northern Territory* report. The findings of the December 2010 Report (DEEWR, 2010) are summarised in Table 23-2.

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Table 23-2 Skills Shortages in Northern Territory at December 2010

Professional occupations in shortage (of possible relevance to EAW)	Technicians and Trades Workers occupations in shortage (of possible relevance to EAW)
Surveyor	Carpenters
Civil engineer	Painting trades workers
Electrical/electronics engineer (experienced)	Plumbers (general)
Mechanical engineer (experienced)	Gasfitters
	Electricians (general)
	Sheet metal trades workers
	Metal fabricators
	Welders (first class),
	Fitters

Source: DEEWR, 2010

Table 23-2 identifies skills shortages that may be relevant to the development of the EAW; in particular there are skills shortages in construction and engineering. Overall, of the 13 professional occupations examined by the NT Labour Economics Office, nine were identified as being in shortage. All of the remaining occupations were found to be in recruitment difficulty. All but four of the 25 technicians and trades workers occupations were identified as being in shortage.

The NT Department of Education and Training has committed to improving the education and employment opportunities for people living in the Northern Territory. It offers incentive payments for employers of apprentices within areas of skills shortages or from disadvantaged groups.

Key providers of skills and recruitment services include: VET (Vocational Education and Training) at the Charles Darwin University, Batchelor Institute of Indigenous Tertiary Education, Larrakia Development Corporation and the NLC.

The Charles Darwin University offers VET as part of its syllabus and along with the Batchelor Institute of Indigenous Tertiary Education is the main public provider of vocational training.

The Larrakia Development Corporation has recently opened a trade training centre, located on Berrimah Road, close to the EAW. The centre provides courses through its partner organisation, Advanced Training International, for high demand trades such as welding, civil construction and general construction, electrical technology (electricians) among others. The courses are open to both indigenous and non-indigenous people, and the centre also provides additional mentoring and life skills to course participants (Larrakia Development Corporation, 2010).

The NLC offers training and employment services for indigenous people and an emphasis of their approach is to ensure that all jobs skills programs and training is meaningful, in that there must be a real job available as an outcome of the training (NLC, 2003).

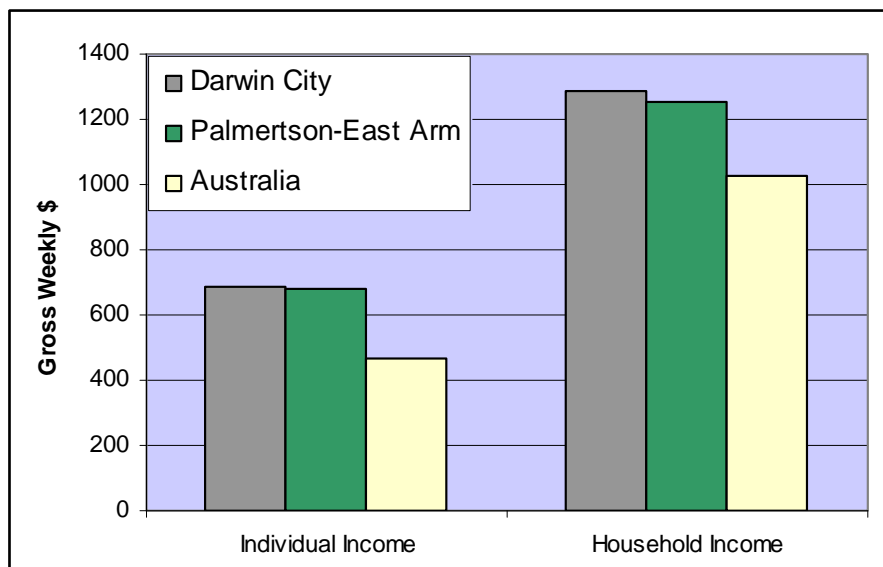
Income

Both Darwin City SSD and Palmerston-East Arm SSD have individual and household incomes that are higher than the Australian median (refer to Figure 23-6). In Darwin City and Palmerston - East Arm, the median weekly individual income was \$687 and \$679 respectively, compared with \$466 in

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Australia. The median weekly household income was \$1,286 in Darwin and \$1,255 in Palmerston, compared with \$1,027 in Australia. (ABS, 2007)

While these incomes are higher than the national median, it has been noted that some households may experience slightly higher than average cash flow difficulties and have lower levels of asset holdings than the national average (INPEX, 2010).



Source: ABS 2006 Census, Quick Stats, based on place of usual residence (ABS, 2007)

Figure 23-6 Median Gross Weekly Income

23.1.8 Community Infrastructure and Services

The discussion below outlines relevant community infrastructure. Other, 'hard', social infrastructure has been identified in Chapter 5, Infrastructure and Transport, including transport systems and infrastructure, communications networks, utilities and waste disposal systems.

Local government

The Darwin and Palmerston regions are each represented by local government. The EAW development site is not located within either of the council zones, but both councils may have interest in the activities due to external social impacts.

Hospitals, Health Care Providers and Emergency Services

Hospitals, Health Care Providers and Emergency Services are listed in Table 23-3.

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Table 23-3 Hospitals, Health Care Providers and Emergency Services

Facility	Services
Hospitals	<p>The Royal Darwin Hospital (363 beds and more than 1700 staff). New changes or expansions: Education centres such as Flinders and Menzies University are on site and are expanding with additional new building (NTG, 2011a).</p> <p>Darwin Private Hospital (99 beds). New changes or expansions: Day Rehabilitation program, which is a multi-disciplinary out patient group program, operates twice a week with plans of future expansion (pers. comm. Darwin Private hospital, 2 March 2011).</p>
Medical / Health Care and Community Centres	Government Medical / Health Care and Community centres.
Specialised health care services (Darwin and Palmerston)	Aged care and disability, alcohol and drug programs, counselling services, child protection and family support services, women's health, dental, cancer screening, environmental health services, general practitioners, hearing services, mental health services, rehabilitation services, home nursing services, dieticians and nutritionist services, baby clinic, occupational therapy and physiotherapy
Emergency Services	4 police stations, 4 fires stations and 3 ambulance stations. (Source: pers. comm. Joint Emergency Communications Centre – NT, 3 March 2011)
Other specialised services	Centre for disease control, poisons information centre.

Community amenity, sports facilities, organisations and clubs

The Darwin and Palmerston region has a wide range of community facilities and organisations, which are outlined below. Additionally, one key area of community amenity is the harbour foreshore, and the harbour itself, which provide a place for people to meet, play sport, fish and undertake cultural practices. The harbour holds a strong value and appeal for communities and tourism owing to the existing balance of the natural environment, landscaping and community infrastructure.

Community Entertainment and Sports Facilities in Darwin include: the Darwin Entertainment Centre, Botanic Gardens Amphitheatre, Darwin Theatre Company, sports grounds, several parks including Darwin Bicentennial Park, cycle paths, 3 public swimming pools, tennis and netball courts, Northern Territory Museum and Art Gallery, 4 Darwin City Council Libraries located in Casuarina, Darwin City, Karama and Nightcliff. (DCC, 2011b; DCC, 2011c; DCC, 2011d; DCC, 2011e; NTG, 2011b; DCC, 2011f).

Darwin Clubs and Organisations include: There are a wide range of sporting clubs in Darwin, including fishing, football, golf, sailing, sports, athletics and Darwin's RSL Services and Social Club. There are also a number of volunteer and community groups. These include groups such as the Smith Family and the CFS as well as interest groups (Darwin City Life, 2011; Tourism Top End, 2011).

Community Entertainment and Sports Facilities in Palmerston include: A range of retail shops, two major shopping centres, cinema complex, restaurants/pubs/clubs/take away & fast food outlets, library, recreation centre, skate park, cycle paths, Aquatic and Lifestyle Centre, several parks and an 18 hole golf course (Palmerston City Council, 2011).

Palmerston Clubs and Organisations include: Palmerston has a number of clubs including the Palmerston Sports Club, Palmerston Golf and Country Club and Palmerston RSL (NTG, 2011c). There are also volunteer organisations within the area.

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23.2 Potential Social Environment Impacts

Social environment impacts are described for construction and operational phases of the project. The identification and assessment has been developed with consideration of potential positive, negative, direct, indirect and cumulative impacts. Because there is information lacking in relation to the workforce requirements and construction timing, which will be key impactors relating to the project, the assessment is therefore generalised and based on experience of potential impacts that have occurred in similar developments.

Other considerations for scoping the severity of the impacts include the location of the site relevant to the population, existing land use and accessibility, and public amenity and values. These impacts are also informed by stakeholder comments obtained during preliminary consultation for the DEIS and will be updated following further public review of the DEIS, the associated public forums, and comments submitted to the consultation website. The potential social environment aspects of this project are classified as follows:

- Employment
- Local content
- Access to community goods and services
- Community health, safety and disturbance
- Social/community structures
- Housing
- Changes to land use, physical environment and amenity

Methodology

Each impact is considered against the 'do nothing' option. The level of each effect is considered using the current port operations as the benchmark. As discussed in Chapter 3, there are not multiple options for the EAW development. As noted in Chapter 3, the social impacts of further developing the existing EAW site are considerably less than for a 'greenfields' (i.e. previously undeveloped) site.

This assessment will compare the project description described in Chapter 2 against the outcomes arising from the current EAW operations and capacity.

23.2.2 Employment

Potential impacts: Opportunities for training and employment would exist within the construction period, which will likely require skilled professionals, such as engineers; tradespersons such as electricians; skilled construction workers and equipment operators; labourers; and managers and administrators. There will also be a number of employment opportunities during the operations period.

At the time of writing, there is only a broad prediction of the number of people who will be required to work on the construction of the EAW, as the contractors who will design this aspect of the project will not be engaged until after the completion of the EIS process. This is expected to be less than 200 people. It is not possible to predict the quantum of specific skill sets that will be required. However, assuming that some proportion of the workforce will be employed from within the local region, it is possible to develop a number of impact and planning scenarios related to this.

If local employment is favoured there will be an improvement in local skills base and local economy. However, existing low unemployment levels may create further competition for employees, which may cause an increase in wages, and also draw people away from jobs where the employers are unable to

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pay commensurate wages; thus causing a gap and potentially higher costs for some employers. There is also a potential for widening of the gap between those in employment and those with lesser opportunities. The other possibility is that the project may recruit workers from overseas on 457 visas.

Likelihood and Significance: There are opportunities for employment, but Darwin has a very low unemployment rate. Additionally, there are a number of significant projects in development that may compete for local labour and there is anecdotal evidence that the reconstruction following the recent natural disasters in Queensland has also drawn labour away from the Darwin region. Therefore it may be difficult to source local labour as a preference.

However, construction is an industry that will always have temporary / finite work and therefore there may be some fluidity in the availability of contractors and employees. Knowing that there may be a skills shortage, the project can also aim to increase the local skills base through vocational training, which will have a positive impact. Otherwise the project will need to seek labour from external markets if there is no available local labour.

It should be considered that many of the direct impacts associated with the construction period will be relatively short term, of a two year duration or less. However, there will be long term employment opportunities within the operations of the EAW. These are likely to be of a small number (less than 20 full-time-equivalent staff), as there will be existing operational staff at the wharf.

23.2.3 Local Content

Potential Impacts: The project has the potential to enhance opportunities for local economic development through the use of local content and suppliers. This could include the provision of construction materials and labour, provision of management and oversight, and any additional indirect employment to support the operations or workers. The need for goods and services will also potentially provide indirect local employment.

Likelihood and Significance: There is a strong likelihood that there will be opportunities for the use of local content, and many goods and services for construction can be sourced from local or regional suppliers. However, limited availability of service providers (in particular labour as noted in 23.2.2 above) may influence the use and positive impacts of local content. While the overall impact will not be significant within the economy, there are likely to be benefits to local businesses associated with the provision of local content.

23.2.4 Access to Community Goods and Services

Potential Impacts: Depending on the levels of non-local employment, there may be an increase in the need for community goods and services. An increased population may place constraints on the level of access to services and strain on community infrastructure. It may also cause inflationary pricing due to increased demand and limited supply. Furthermore, construction activities for the EAW could engender strain on local services.

Likelihood and Significance: The likelihood for impacts to community services depends on the level of local employment, the duration of inputs, and additionally if non-local employees were to bring family members with them. However, it is recognised that both Darwin and Palmerston are high growth areas and the increase in temporary population would not be significant in comparison to ongoing natural growth, tourism and the related government planning.

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There has been recent expansion to medical services, both at Darwin hospital and the Palmerston 'super clinic', and it is unlikely that the proposed workforce or ongoing activities will have more than a low level of impact on the availability of access to community services or infrastructure.

23.2.5 Community Health, Safety and Disturbance

Most of the potential impacts listed below are covered in more detail within the specific sections of this DEIS. These are listed below.

Potential Impacts:

- Increase in:
 - Vector related disease, including increase in biting insects due to standing water.
 - Exposure to hazardous materials.
 - Increased or constrained traffic - traffic / transport associated with project will interact with public roads increasing potential for road accidents, congestion, deterioration, diversions, and changes in people movement.
 - Reduced safety of proximate recreational activities.
 - Changes to visual/amenity of site.
 - Noise disturbance.
 - Dust or other air pollution from the construction or operations has the potential to cause respiratory illness or annoyance.
 - Influx of external employees.

Likelihood and Significance: It is likely that the potential impacts outlined above may occur to some degree during either construction or operations. Some are likely to be time-bound, such as noise disturbance during construction activities, which will have a limited impact on residential sites due to the remoteness of the location. Some aspects may occur during operations, such as increased exposure to hazardous materials due to the increased volume of transported goods. The likelihood and significance is described below:

- Vector related disease, including increase in biting insects due to standing water, could occur if there is improper management (refer to Chapter 19).
- There is potential for exposure to hazardous materials, owing to increased trade volumes during operations.
- There is strong likelihood of issues related to the increase of road traffic, especially during the construction phase, when raw materials will be hauled to the site.
- Reduced safety of proximate recreational activities may occur during the construction phase.
- Changes to visual appearance of site may cause concern for residents; the visual amenity assessment in Chapter 17 of the DEIS found that visual impacts range from negligible to high. However this is subjective and the expansion of the wharf into the harbour may reduce visual amenity for residents across the harbour or users of the natural environment, such as Charles Darwin National Park, and other adjacent sites.
- A noise impact assessment, summarised in Chapter 14, found that the impacts of noise are likely to range from negligible to minor.
- Dust or other air pollution from the construction or operations has the potential to cause respiratory illness or annoyance. An air quality impact assessment, summarised in Chapter 11, found that

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likely impacts to air quality are minor. However, management planning has been described in order to mitigate potential impacts.

- Influx of external employees is likely to have a negligible to minor impact (refer Section 23.2.6).

23.2.6 Social / Community Structures

Potential impacts: The impacts related to this will mostly be around an influx of temporary workers and changes in demographic and social structure of local community.

Likelihood and Significance: As it is possible that a number of workers could be sourced from the local area, the effect of this impact will range from negligible changes to the demographic profile within the area (if the vast majority of the workers are local residents – given current baseline for employment levels), to somewhat more significant if there is quite a high number of non-local workers.

Furthermore, the duration of time and peak for the non-local workforce cannot be established as yet, and therefore the significance may also be reduced if certain workers are only required for a limited amount of time. Therefore, impacts are dependent on the workforce numbers and type, duration of inputs and absorptive capacity of the existing environment.

However, given the type of works, a high number of workers is not likely to be required overall (less than 200) and Darwin already has a growing and often transient population. Darwin is a multicultural city and the types of workers required are likely to be well represented within the existing population profiles. Therefore impacts to social and community structures associated with the EAW are not likely to be significant on their own, but may have some degree of cumulative effect due to other developments within the Darwin region.

23.2.7 Housing and Accommodation

Potential Impacts: An increased need for housing and accommodation may provide additional income to local businesses and individuals who provide these services. Conversely, increased demand may further reduce what is already a limited housing and accommodation stock, and cause increased competition and inflationary pricing, which may adversely affect some members of the population.

Likelihood and Significance: The likelihood of impacts occurring depends on the size of the non-local workforce and the duration of required inputs. The likelihood is also influenced by other developments and demand for housing and accommodation within the region - a high level of economic growth has been predicted for Darwin, and there are currently low vacancy rates for both rental properties and hotel-style accommodation. Therefore it is possible that there may be some low-level impacts, mostly due to cumulative effects.

23.2.8 Changes to Land Use, Physical Environment and Amenity

Potential Impacts: The site is located in close proximity to the Charles Darwin National Park and is also located close to or holds sacred or heritage sites. Impacts would include changes to activities, including cultural, fishing, recreational and other uses.

There is no reduction in land access, as land is already restricted, but there may be some exclusion zones during works to ensure public safety.

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There is community concern relating to the removal of mangroves, and potential for impacts on cultural sites, marine creatures, coral and the general environment that is valued by recreational users.

There are also concerns about the increased industrialisation of the harbour, especially with consideration of the cumulative impacts of the development within Darwin Harbour. The relatively 'natural beauty' of Darwin harbour is likely to have a high value for recreational and cultural users, residents and tourists.

Likelihood and Significance: It is likely that there will either be an actual or perceived change to environmental values and amenity for cultural and recreational users. Construction exclusion zones are likely to be temporary, but the expansion of the site and volume of harbour traffic may have some effect on the location of recreation activities.

Sacred sites are protected from direct disturbance through the AAPA, but it is possible that there may be temporary indirect impacts.

Further consultation with community and interest groups will assist to establish the significance of changes to the physical environment.

23.3 Management of Impacts

The objectives of social environment impact management are to:

- Prevent adverse social environment impacts from the project activities and facilitate local benefits, such as employment and other economic opportunities; and
- Establish and maintain awareness of the importance of social environment impacts and incorporate management measures into project activities and operations.

This section describes the proponent's social environment impact management strategy. Details of specific impact management and mitigation measures will be provided in the EAW EMP, which will be updated after the conclusion of the EIS process, for the ongoing operation of the expanded EAW facility.

23.3.1 General

Community Engagement

The proponent has undertaken consultation with project stakeholders during the development of this DEIS. Feedback on the DEIS from the broader community will be received by the proponent, and community comments will be addressed by a Supplement to the DEIS.

During construction and operation of the proposed development, the proponent will implement a mechanism by which communities can register concerns or issues associated with the project; these concerns will be appraised and investigated as necessary. The existence of this mechanism will be communicated to communities via signage close to the site, and through other media.

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Local Content and Service Provision, and Employment

The proponent will promote local content, revenue generation and skills development, as well as participation by indigenous people in the project, in the construction contracts to be used for the project. The contracts will seek to ensure maximisation of:

- local goods and services
- local business services
- use of local suppliers
- use of local construction materials.

Access to Community Goods and Services

The proponent will work with other government agencies to ensure that government planning is informed by EAW activities.

Community Health, Safety and Disturbance

Management measures for community health, safety and disturbance will be described within the relevant environmental aspect chapters. This includes biting insects, noise, visual amenity and air pollution.

The proponent will develop traffic management plans, AQMPs, biting insect management plans, codes of conduct for personnel, and robust controls for hazardous goods transport and management. These will be communicated to the community as appropriate.

Housing

The proponent will specify that contractors develop a strategy to minimise impacts on existing housing stock, including prioritising local employment.

Land use and Amenity

Efforts will be made to minimise the project footprint, and to retain the amenity of the area.

23.3.2 Monitoring and Reporting

The proponent will undertake monitoring and evaluation of employment strategies, by requiring that contractors include a monitoring and reporting mechanism.

The proponent will monitor and respond to community concerns, and communicate the mechanism by which the public can register concerns or issues associated with the project.

23.4 Commitments

- *Promote local content, revenue generation and skills development, as well as participation by indigenous people in the project, in the construction contracts for the project.*
- *Work with other government agencies to ensure that their planning is informed by EAW activities.*
- *Ensure that the main EPC contractors develop a strategy to minimise impact on existing housing stock.*
- *Ensure that contractors and then operations include management measures for community health and safety.*

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- *Inform communities about avoidance of environmental impacts, and environmental mitigation activities.*
- *Monitor and respond to community concerns about the project and operations, and implement corrective action resulting from outcomes of investigation of community concerns.*

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