

APPENDIX F

Social Impact Assessment



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Vista Gold Australia Pty Ltd

Mt Todd Gold Project Social Impact Assessment

June 2013



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Executive Summary

Vista Gold proposes to re-establish and re-open the Mt Todd Gold Mine, located 55km northwest of Katherine and 250km south of Darwin. The proposed operations involve open cut mining and processing of up to 19 Million tonnes of ore per annum (Mtpa) to produce gold Dore (unrefined gold). Gold Dore would be transported by secure containment to Darwin and shipped to a refinery.

The majority of social impacts associated with the Project will occur within the Katherine Local Government Area and the town of Katherine. Some wider social impacts are also likely to occur at a regional level defined by the Lower Top-end Northern Territory region and within the Northern Territory more broadly.

The Project will be undertaken in three phases spanning an estimated 19 years. The Project will commence in 2014 with a two year pre-construction construction phase followed by a 13 year operations phase and four year closure and rehabilitation phase.

The construction and operations workforces will peak at approximately 450 and 350 personnel respectively.

Social Impact Assessment

A social impact assessment (SIA) has been completed as part of the Project's Draft Environmental Impact Statement. The SIA has been undertaken based on robust methodology and in accordance with the International Association for Impact Assessment (IAIA) principles for SIA. The SIA was undertaken using a range of social research methods including desktop assessment, analysis of quantitative and qualitative information sources, undertaking a community views survey, key stakeholder interviews, field research, focus group sessions and a workshop.

The purpose of the SIA was to identify and assess the significance of likely social impacts and benefits arising from the Project, and to develop appropriate mitigation, management and monitoring strategies. These strategies are detailed in a Social Impact Management Plan.

Public consultation and engagement activities were coordinated with SIA research activities to maximise stakeholder involvement and input to the SIA.

Key social impacts identified were in relation to: workforce management; housing and accommodation; economic and employment opportunities; community infrastructure and services; community health, safety and wellbeing; Indigenous resources, values and aspirations; and mine closure and rehabilitation.

Key social benefits arising from the project include significant employment and economic development opportunities for the Katherine Region; and opportunities for Indigenous employment and economic development. In addition, there are significant positive social and environmental benefits arising from the opportunity to address the negative historical legacy of the Mt Todd Gold Mine through improved environmental and financial management.



Social Impact Management

A Social Impact Management Plan (SIMP) has been developed (Appendix C). The purpose of this plan is to describe Vista Gold's commitment to minimising negative social impacts and enhancing the overall benefits of the Project. This plan identifies:

- ▶ Purpose and methodology;
- ▶ A summary of the Project;
- ▶ Social impacts and benefits and their significance;
- ▶ Impact management strategies, including the mechanism for ongoing Stakeholder engagement;
- ▶ Action plans for key impact areas; and
- ▶ Mechanisms for implementation, monitoring and reporting against these action plans.

The mitigation strategies and action plans included in the SIMP are developed around the following themes:

- ▶ Community Values and Change;
- ▶ Local Industry Participation, Employment and Training;
- ▶ Housing and Accommodation;
- ▶ Environmental Impact Statement Management Plan (Roads, Traffic and Safety);
- ▶ Workforce Management Strategy;
- ▶ Near Neighbour Program; and
- ▶ Social Infrastructure and Services.



1. Introduction

1.1 Proponent

The Proponent for this Project is Vista Gold Australia Pty Ltd (Vista Gold).

1.2 Purpose of the SIA

The purpose of the Social Impact Assessment (SIA) is to assess the potential social impacts and benefits of the Project on affected communities consistent with Section 4.8 of the *Guidelines for Preparation of an Environmental Impact Statement: Mt Todd Gold Project, Katherine Region NT* (Guidelines). This SIA has been undertaken as part of preparing a Draft Environmental Impact Statement (EIS) for the Project.

1.3 Objectives of the SIA

The objectives of the SIA were to:

- ▶ Identify and evaluate the ways that the Project may impact on the community and other stakeholders, including both positive and negative impacts;
- ▶ Describe the existing social environment (social baseline) including local and regional communities potentially affected by the Project;
- ▶ Identify potential social impacts and opportunities arising from the Project;
- ▶ Assess the potential significance of social impacts and benefits of the Project; and
- ▶ Recommend mitigation and management measures to avoid, mitigate or manage adverse impacts or to enhance opportunities related to the Project.

1.4 Statutory Requirements

The Northern Territory Environment Protection Agency (formerly the Department of Natural Resources, Environment, The Arts and Sport) has determined that the Project requires formal assessment, under the NT *Environmental Assessment Act* 1982 (EA Act), at the level of an Environmental Impact Statement (EIS). The proposal has also been referred to the Australian Government under the *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) and has been determined to be a controlled action, requiring formal assessment. This SIA has been prepared in accordance with Section 4.8 of the *Guidelines for Preparation of an Environmental Impact Statement: Mt Todd Gold Project, Katherine Region NT*.



1.5 Overview of the SIA Approach

The SIA was conducted as part of the Project EIS and approvals process. The approach to the SIA was as follows:

- ▶ Initial scoping, involving:
 - Determining a study area for the SIA based on the likely geographical extent of social impacts and benefits of the proposed Project; and
 - Preliminary screening of potential social impacts;
- ▶ Developing a social baseline for the study area to understand the existing social conditions and characteristics of the communities therein. This included a detailed description of the demography, lifestyle, community values, health, housing, environment and economic factors that characterise the communities;
- ▶ Identifying potential social impacts (positive and negative) and evaluating the potential significance of these impacts to stakeholders;
- ▶ Developing mitigation and management strategies and monitoring mechanisms to minimise negative impacts and maximise the benefits for affected communities and documenting these in a Social Impact Management Plan (SIMP) (Appendix C); and
- ▶ Undertake stakeholder engagement activities to:
 - Inform and validate social baseline data collection;
 - Identify current issues in relation to social impacts; and
 - Respond to issues and concerns raised by stakeholders and seek stakeholder input in developing mitigation measures.

1.6 Policies, Plans and Guidelines

The following policies, plans and guidelines have been referred to in developing the SIA:

1.6.1 International Best Practice

- ▶ International Principles for Social Impact Assessment (International Association for Impact Assessment – IAIA, 2003); and
- ▶ International Association for Public Participation, Core Values for Public Participation Processes (IAP2, 2007).

1.6.2 Northern Territory Plans and Policies

- ▶ Consultation Paper for the Katherine Land Use Study (under development);
- ▶ *Territory: 2030 Strategic Plan (2009).*



1.6.3 Local Government

- Local Government Regional Management Plan – Big Rivers Region (Department of Local Government, 2012);
- Katherine Town Council Municipal Plan 2013;
- Roper Gulf Shire Plan 2012-2013; and
- Victoria Daly Shire Plan 2012-13.

1.7 Project Overview

Vista Gold proposes to re-establish and re-open the Mt Todd Gold Mine, located 55km northwest of Katherine and 250km south of Darwin.

The main proposed Project components comprise:

- Extension of the existing Batman Pit;
- Expansion of the existing Waste Rock Dump;
- Existing Tailings Storage Facility (TSF1);
- Proposed new Tailing Storage Facility (TSF2);
- Raising of the Raw Water Dam and an increase in the area of inundation;
- Construction of haul roads and possible realignment of the existing access road;
- Rehabilitation of the existing heap leach pad (HLP); if residual HLP material is not processed through the new plant;
- Diversion of Horseshoe Creek and Stow Creek adjacent to TSF2 to provide flood protection;
- Construction and processing of low grade ore stockpiles;
- New water treatment plant;
- Clay borrow area;
- Process plant workshops, administration and plant site buildings;
- Chemical and reagent storage and handling facility;
- Anaerobic treatment wetlands; and
- Process plant construction.

The proposed operations involve open cut mining and processing of up to 17.8 Million tonnes of ore per annum (Mtpa) to produce gold Dore (unrefined gold). Gold Dore would be shipped by secure containment to a refinery.

The Project will occur in three phases:

- | | |
|--|----------|
| ▸ Construction Phase | 2 years |
| ▸ Operations Phase | 13 years |
| ▸ Decommissioning and rehabilitation Phase | 4 years |

The construction and operations workforces will peak at approximately 450 and 350 personnel respectively.



1.8 Factors Influencing Scope

Scoping of the SIA involved:

- ▶ Determining the geographical boundaries of the assessment;
- ▶ Identifying the range of potential issues that may need consideration. This initial issues scoping ensures that:
 - Appropriate social baseline information is collected to support assessment of potential impacts on stakeholders; and
 - The full-range of potentially affected stakeholders are identified.

1.9 Defining the Study Area

The study area provides a spatial boundary to the Project. Key considerations include the nature and scale of potential social impacts and their interaction with:

- ▶ Landholders who have land within the Project boundaries and/or within the immediate area of the Project site (Local Study Area);
- ▶ Nearby communities and service centres affected by the Project (Local Study Area); and
- ▶ Communities more distant from the immediate area of Project influence which may also be affected in terms of indirect or induced social impacts (Regional and Wider Study Area).

1.9.1 Local Study Area

The local study area includes those communities located in close proximity to the Project Site where the majority of direct social impacts will be experienced. This area is determined to be the Town of Katherine which is located approximately 55km from the Project site. Katherine will be the main service centre for the supply of goods and services to the Project and a key location for housing of the operational workforce.

Figure 1 shows the local government administrative boundary of Katherine. This administrative boundary defines the Local Study Area for the purposes of this SIA Report.

1.9.2 Regional Study Area

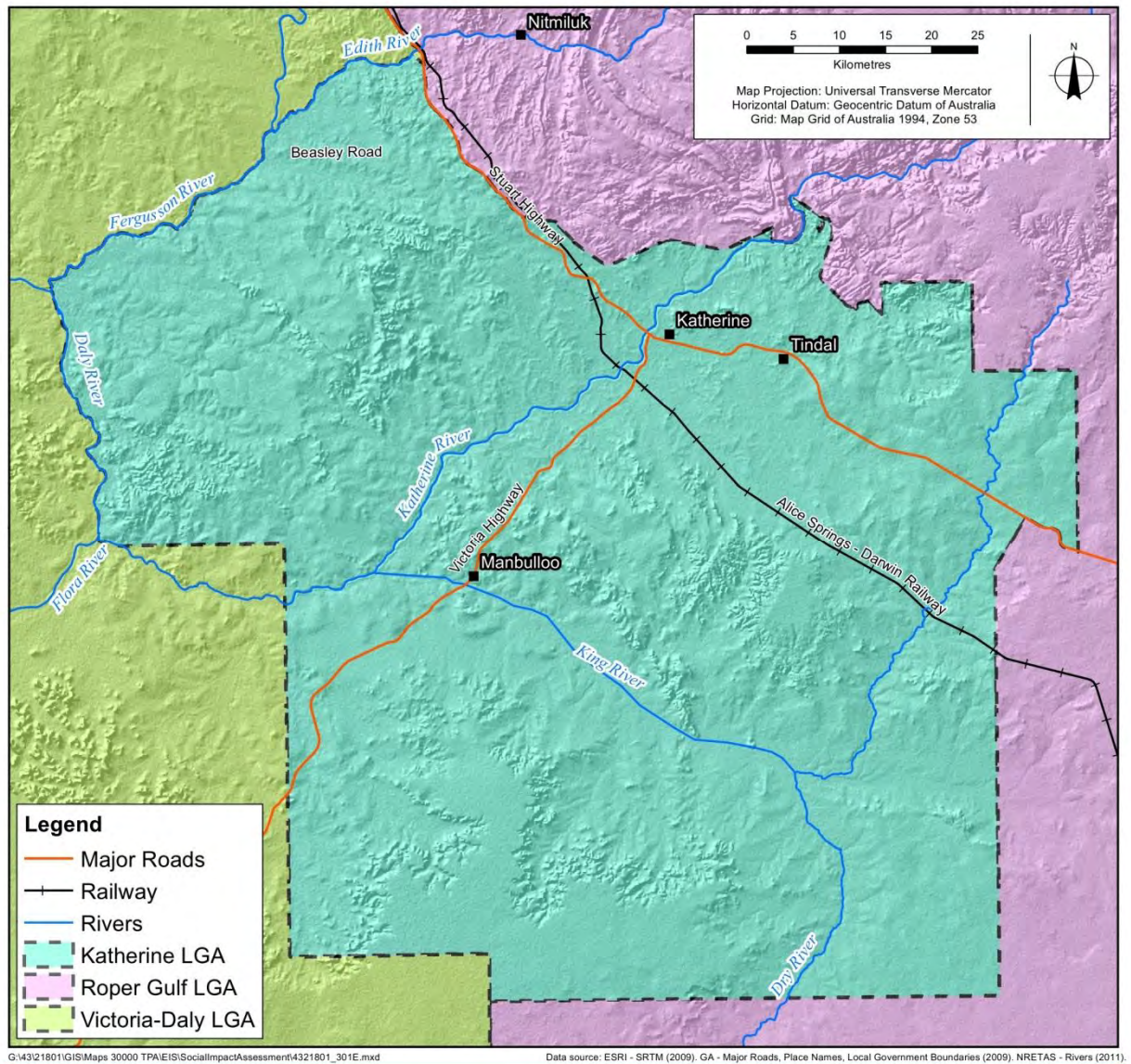
The regional study area (Figure 2) is determined as the Lower Top-end Northern Territory (an area spatially defined by the Australian Bureau of Statistics Statistical Subdivision). This area includes the local government areas of Roper Gulf Shire and Victoria Daly Shire.

Katherine is a regional hub for the Lower Top-End due to its strategic location within the Northern Territory. The Project will have an impact regionally through the supply of goods and services, provision of employment and generation of community interest and investment across the region.

The Regional Study Area also includes traditional land of the Jawoyn Aboriginal People. This land is referred to as Jawoyn Country.

1.9.3 Wider Study Area

The wider area for the Project includes the Northern Territory and Darwin.



(Source: http://www.localgovernment.nt.gov.au/shire_boundaries)

Figure 1 Local Study Area

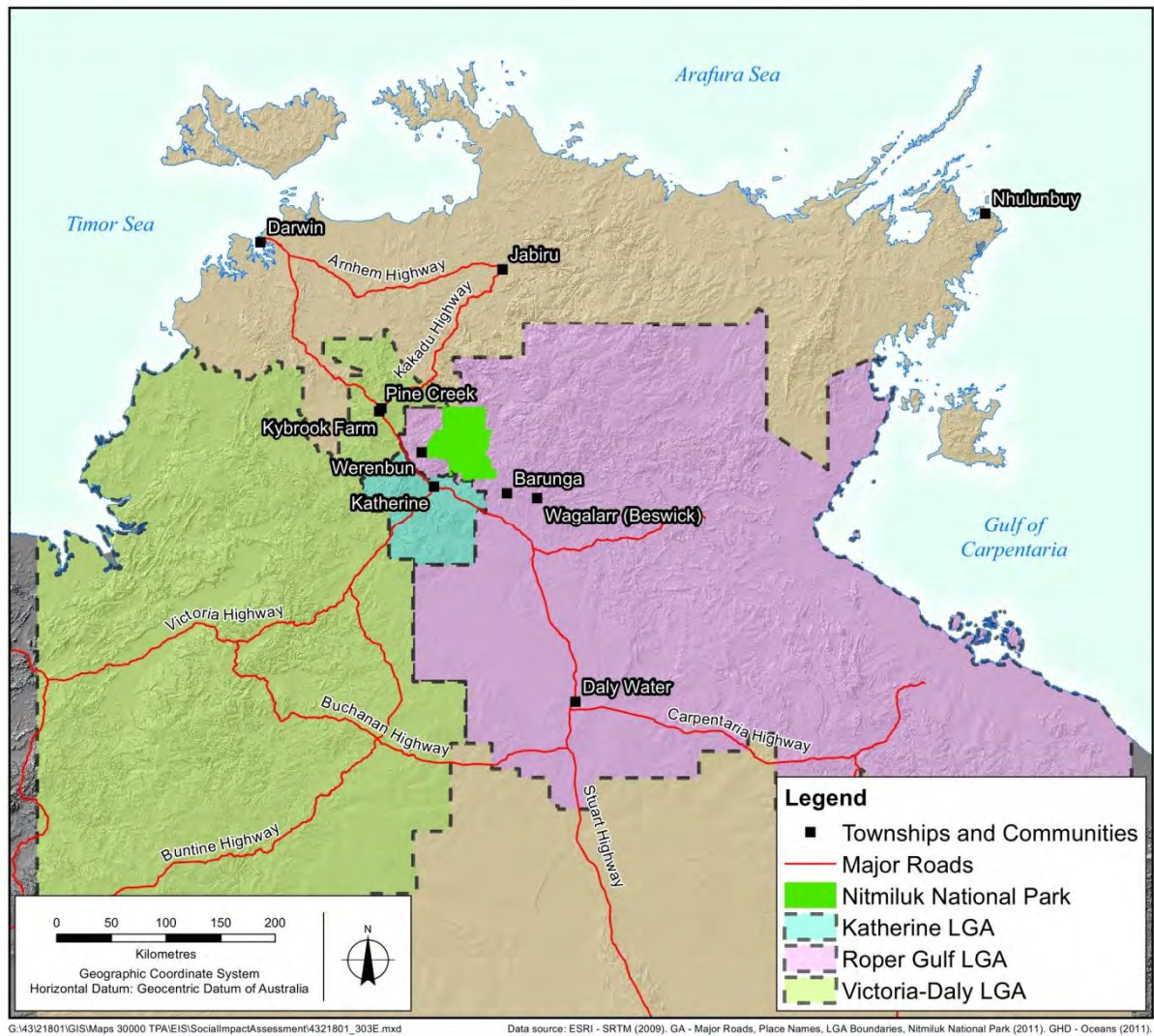


Figure 2 Regional Study Area



2. SIA Methodology

2.1 Introduction and Background

This section describes the methodology adopted for the SIA including key SIA stages and activities. The methodology has been informed by established SIA theory and practice described by Goldman (2000), van Schooten et al. (2003) and Vanclay (2002). The SIA has also been conducted in accordance with the IAIA guiding principles.

2.2 SIA Guiding Principles

The IAIA guiding principles are as follows:

- **Precautionary Principle**

In order to protect the environment, a concept which includes people's way of life and the integrity of their communities, the precautionary approach shall be applied. Where there are threats or potential threats of serious social impact, lack of full certainty about those threats should not be used as a reason for approving the planned intervention or not requiring the implementation of mitigation measures and stringent monitoring.

- **Uncertainty Principle**

It must be recognised that our knowledge of the social world and of social processes is incomplete and that social knowledge can never be fully complete because the social environment and the processes affecting it are changing constantly, and vary from place to place over time.

- **The Prevention Principle**

It is generally preferable and less expensive in the long-term to prevent negative social impacts and ecological damage from happening than having to restore or rectify damage after the event.

- **The Protection and Promotion of Health and Safety**

Health and safety are paramount. All planned interventions should be assessed for their health impacts and their accident risks, especially in terms of assessing and managing the risks from hazardous substances, technologies or processes, so that harmful effects from these are minimised, including not bringing them into use at all or phasing them out as soon as possible. Health impacts cover the physical, mental and social wellbeing and safety of all people, paying particular attention to those groups of the population who are more vulnerable and more likely to be harmed, such as the economically deprived, Indigenous groups, children and women, the elderly, the disabled, as well as to the population most exposed to risks from the planned intervention.



2.3 Overview of the SIA Methodology

The SIA methodology comprised the following key stages:

1. **Project Scoping** – This involved developing an understanding of the Project, defining the SIA scope and study area, identifying relevant SIA stakeholders and social baseline indicators and developing an outline structure for the SIA.
2. **Project Baseline** – This involved desktop research to inform the social baseline and included gathering and collating data from the Australian Bureau Statistics and relevant NT Government Departments, reviewing planning documents, community plans, reports and websites to develop a community profile. Gaps in information were identified so that this information could be collected during stakeholder consultations. Baseline stakeholder consultations were undertaken over seven days in Katherine and Darwin targeting the range of key stakeholder groups who have an interest in the Project.
3. **Project Description** – During this stage the Project description was refined based on stakeholder consultation and the outcomes of the scoping/baseline stage of the Project. A key area of Project refinement was the location of proposed accommodation facilities for the operations workforce.
4. **Impact Identification and Assessment** – A preliminary assessment of the potential Project impacts and opportunities informed the Project baseline and baseline stakeholder consultations. Stakeholder consultation on potential social impacts occurred during a second round of public consultation in Darwin, Pine Creek and Katherine including nearby Aboriginal Communities. The results of this consultation then informed the finalisation of the social impact assessment.
5. **Development of Mitigation, Enhancement and Monitoring Strategies for the Project** – Mitigation, enhancement and monitoring strategies were developed to address identified high priority social impacts in conjunction with Vista Gold and the Project Design Team.
6. **Development of Social Impact Management Plan**

A SIMP was developed for construction, operation and closure stages of the Project (Appendix C).

Figure 3 outlines these stages. They are presented in a linear fashion but were often conducted iteratively.

Table 1 outlines specific SIA activities and timing. These activities were also coordinated with EIS public consultation as these closely align, although have different objectives and purposes. Section 2.4 describes the public consultation program in general terms. For further detail refer to the Public Consultation Report.

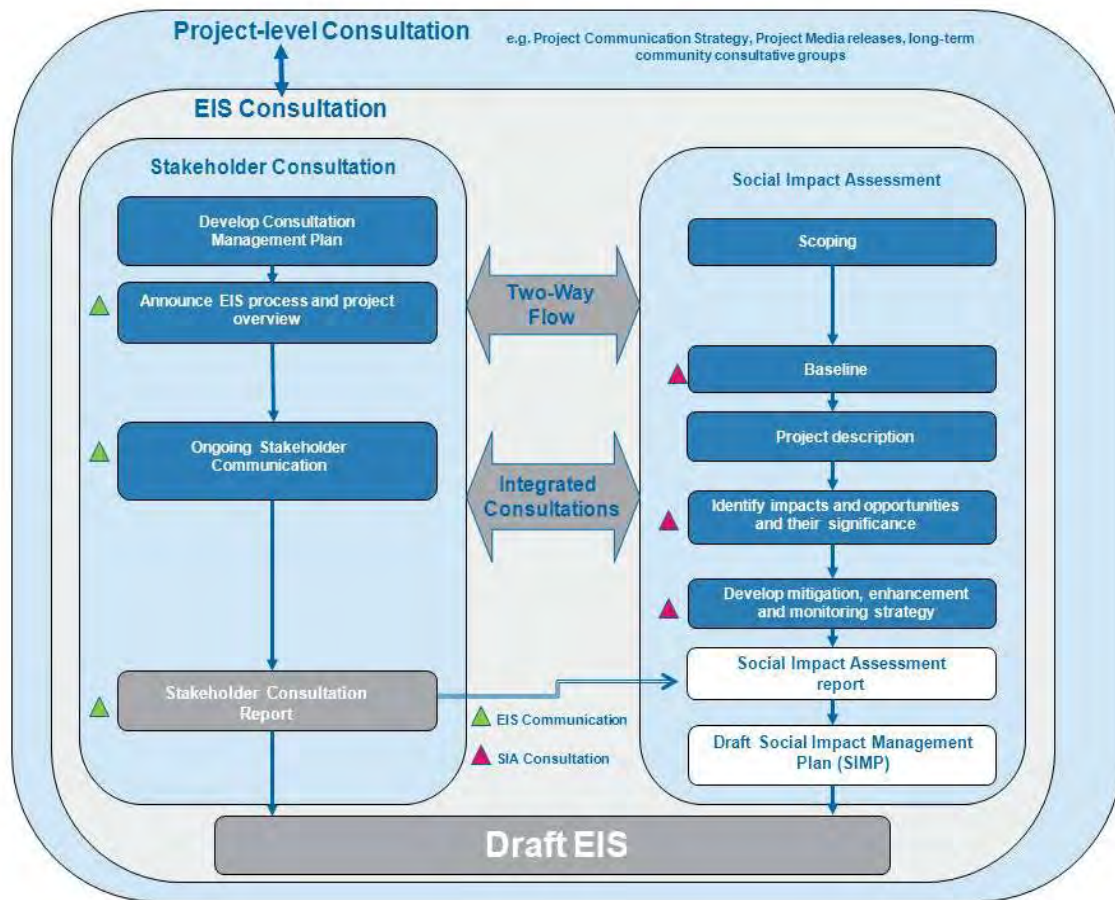


Figure 3 SIA and Public Consultation Overview

2.4 Public Consultation Program

EIS consultation commenced in early 2011 and was timed to coincide with key EIS milestones. Stages 1 and 2 below have been completed. Stage 3 and 4 will be undertaken following the release of the Draft EIS for public comment:

- ▶ Stage 1: EIS commencement including the release of the Notice of Intent (NOI);
- ▶ Stage 2: Release of the draft Guidelines for the Mt Todd Gold Project for Public Comment;
- ▶ Stage 3: Release of the Draft EIS; and
- ▶ Stage 4: Evaluation and EIS finalisation.

The sequencing of consultation activities is shown in Figure 4.



Table 1 Summary of SIA Activities

SIA Stage	Step	Month*	Task
Scoping	1	March 2011	SIA scope and methodology development Literature review of social impacts of mining Review of key Project background information including the Mt Todd Gold Project Draft Environmental Impact Statement prepared for Zappopan (NRS Environmental, 1993)
	2	April 2011	Identification of the Local, Regional and Wider Study Area (Section 1.9)
Baseline	3	April 2011	Community Information Stand at Katherine Show Conduct Community Views Survey (Katherine Show) Interviews with key Project stakeholders including Health Providers, Police and relevant NT Agencies and NGOs
	4	May/June 2011	Follow-up discussions with key Stakeholders
	5	September 2011	Community Information Sessions Katherine and Pine Creek Community Views Survey – Katherine Shopping Centre Interviews/Focus Groups with key Stakeholders including accommodation providers, RAAF Base Tindal and Environment Council NT.
Identify impacts and opportunities	6	September 2011	Workshop with Mt Todd Rehabilitation Reference Group Workshop with the Katherine Chamber of Commerce
Develop mitigation, management and enhancement strategies	7	January 2012	Develop housing and accommodation strategy
	8	July 2012	Finalise Draft SIA Report and proposed SIMP.
	9	December 2012	Update Draft SIA Report to incorporate 2011 census data and reflect changes to the Project.

* These dates represent the starting time for each activity.



	Q1 2011	Q1 2011 – Q2 2013	Q2 2013 – Q3 2013	Q3 2013– Q4 2013
STAGE	STAGE 1 Commencement of EIS process	STAGE 2 Draft EIS Development	STAGE 3 Public Exhibition of DRAFT EIS	STAGE 4 Evaluation and EIS Conclusion
Consultation Activities	Stakeholder identification Conduct preliminary issue/risk assessment Document review Prepare Stakeholder Consultation Plan Government Agency consultations Preliminary community and key stakeholder consultations	Community Information Sessions Distribution of project information materials (fact sheets) Project briefings and focus group meetings Manage project telephone hotline, email address and stakeholder database Respond to stakeholder comments in a timely manner Analyse stakeholder comments to inform Draft EIS investigations SIA consultation activities	Promote Public Exhibition Period including public displays and Community Information Sessions Coordinate and manage public submissions Analyse public submissions and draft responses	Close out activities Consultation evaluation
Ongoing stakeholder consultation and monitoring of feedback				
Regulatory Deliverables		Prepare Stakeholder Consultation Report and Social Impact Management Plan for Draft EIS	Prepare Community Feedback Report for Supplementary Report to the Draft EIS	

Figure 4 EIS Consultation Stages and Timeframes

Details of the community consultation program are summarised in the Public Consultation Report.

Data Sources and Collection Methods

A range of qualitative and quantitative data sources were used to inform the SIA, including:

- Primary sources such as stakeholder interviews, focus groups and workshops;
- A Community Views Survey;
- Secondary sources such as relevant reports, ABS Census and other statistical data; and
- Literature review of other comparable projects and social impacts and mining (Table 2).

For statistical data, the ABS Census 2011 has been used as the key source of data for this report. Unless otherwise stated, the 'place of usual residence' for census night data has been used.



Table 2 Summary of Literature Review Documents

SIA Phase	Literature Review Documents
Scoping and Impact Assessment	AHURI 2009. Housing market dynamics in resource boom towns, Report prepared for the Australian Housing and Urban Research Institute, July 2009 Bauman, T & Smyth D, 2007. Indigenous Partnerships in Protected Area Management in Australia: Three case studies, Report for the Australian Institute of Aboriginal and Torres Strait Islander Studies Central Queensland University, 2003. <i>Economic and social impacts of the Coppabella Mine on the Nebo Shire and the Mackay Region: Part II: Economic Impacts Study</i> Di Milia, L, 2006. "Shift work, sleepiness and long distance driving" (in) <i>Transportation Research Part F</i>:278-285 Di Milia, L. and Bowden, B. 2007. "Unanticipated safety outcomes: shiftwork and drive in, drive out workforce in Queensland's Bowen Basin" (in) <i>Asia Pacific Journal of Human Resources</i> 45(1):100-112 Kaczmarek, E. A. and Sibbel, A. M., 2008. "The psychosocial well-being of children from Australian military and fly-in-fly-out (FIFO) mining families" (in) <i>Community, Work and Family</i> Vol. 11, no. 3, pp.297-312 Murray, G. and Peetz, D., 2008. <i>The Big Shift: The gendered impacts of twelve hour shifts on mining communities</i> presentation at the International Sociological Association, Barcelona, Spain Rolfe et al, 2007. "Lessons from the social and economic impacts of the mining boom in the Bowen Basin 2004-2006" <i>Australasian Journal of Regional Studies</i> 13(2):134-153 Lockie et al, 2009. "Coal mining and the resource community cycle: A longitudinal assessment of the social impacts of the Coppabella mine" (in) <i>Environmental Impact Assessment Review</i> 29:330-339 Petkova et al, 2009. "Mining developments and social impacts on communities: Bowen Basin case studies" (in) <i>Rural Society</i> 19(3):211-228 Murray and Peetz, 2008. <i>The Big Shift: The gendered impact of twelve hour shifts on mining communities</i> Paper presented at the International Sociological Association Conference, Barcelona, Spain Hubinger, Parker and Clavarino, 2002. "The intermittent husband: impact of home and away occupations on wives/partners" (in) Conference Proceedings of the Queensland Mining Industry Health and Safety Conference 2002 Storey, K., 2001. "Fly-in/fly-over: mining and regional development in Western Australia" (in) <i>Australian Geographer</i> 32(2):133-148
Identification of possible management strategies and monitoring programs	CSRIM, 2009. Community Complaints and Grievance Mechanisms and The Australian Minerals Industry, Second Discussion Paper commissioned by the Minerals Council of Australia Barclay, M and Pattenden, C, 2007. "Retention of Women in the Minerals Industry" (in) <i>Unearthing New Resources: attracting and retaining women in the Australian minerals industry</i> Beach, R. and Cliff, D., 2003. "Turnover and FIFO operations: some facts, opinions and theories" <i>AusIMM Bulletin</i> Sept/Oct 5:64-65 Haslam McKenzie, F., 2007. Attracting and retaining skilled and professional staff in remote locations DKCRC Report 21, Desert Knowledge Cooperative Research Centre, Alice Springs Kemp, D., 2009. "Mining and community development: problems and possibilities of local-level practice" (in) <i>Community Development Journal</i> 1-21

This baseline information has been further supplemented with qualitative data from semi-structured stakeholder interviews and focus group sessions with key stakeholder groups. Full details of this qualitative research are described in the Public Consultation Report.



2.5 SIA Conceptual Framework – Social Change vs. Social Impact

GHD has adopted the van Schooten *et al* (2003) conceptual framework for identifying social impacts. This approach has been peer reviewed by Vanclay (2002, p193) and identified as a useful way of thinking about social impacts. This model makes a clear distinction between social change processes and social impacts.

Social change processes are set in motion by Project activities or policies and can be measured objectively, independent of the local context. For example, in-migration of outside workers as a result of Project commencement is a social change process due to Project activities. This social change process may, or may not, lead to negative social impacts. This depends on the local context and how this social change affects the local community and key stakeholders. A positive social impact from this social change process may be increased community spirit from additional families moving to the area; whereas a negative social impact could be increased competition for limited housing.

While social change processes can be clearly and objectively defined, the way that these processes are perceived or valued, and the extent to which these processes lead to positive or negative changes in the lives of individuals, will depend on the societal context in which various social groups exist. Some sectors of society, or groups in society, are quite resilient to social changes, are able to adapt quickly and even exploit the opportunities of a new situation such as the commencement of a mining project. Other groups may, for various reasons, be less able to adapt to social changes and are more vulnerable to the negative consequences of change. Higher income groups may be able to make investments that allow them to take advantage of business opportunities arising from a new situation. Conversely, groups with limited financial resources may be vulnerable to rises in rental housing costs and other living costs.

2.6 Impact Identification, Description and Significance Assessment

Impact identification, description and significance assessment was carried out for the construction and operation phases of the Project. This assessment was based on information from multiple sources. Where necessary, data triangulation methods were used to cross-correlate this information. Data triangulation for SIA involves analysing data from a variety of sources (qualitative and quantitative) to validate findings.

The impact identification process was informed by the following sources:

- Knowledge developed from the social baseline;
- Project description;
- SIA literature review;
- In-depth interviews with stakeholders;
- Issues and concerns raised through public consultation activities; and
- Impacts identified for similar projects or projects being undertaken in the region.



The significance of social impacts has been identified using a social risk matrix, taking into consideration the likelihood and consequence of impacts, stakeholder group, duration of impact and the spatial extent of the impact. Social impacts are described in terms of:

- ▶ The potential change in existing conditions or characteristics of the local, regional or wider study area that might arise from the Project;
- ▶ The extent to which this change might impact on communities or social infrastructure identified, having regard to:
 - Community characteristics
 - The current status of community services and infrastructure.

2.6.1 Impact Identification

Potential impacts have been identified by analysing the proposed Project activities, social change processes expected and the views and perceptions of stakeholders. Potential impacts were identified in relation to the following social environment aspects:

- ▶ Workforce;
- ▶ Housing and accommodation;
- ▶ Economic and employment;
- ▶ Community infrastructure and services;
- ▶ Community health, safety and well-being;
- ▶ Land use and property;
- ▶ Indigenous peoples aspirations and resources;
- ▶ Traffic and transport; and
- ▶ Post-mining.

2.6.2 Impact Significance Assessment

As social systems are very complex, indirect and flow-on impacts can be difficult to assess due to the complex chain of events that may give rise to such impacts. Where such interactions are identified, indirect and flow-on effects are examined by:

- ▶ Clearly identifying the cause/effect relationships between each action and impact;
- ▶ Considering a conservative approach or “worst-case” approach;
- ▶ Exploring a “likely case” based on expert judgement of reasonably likely values and consequences; and
- ▶ Clearly stating factors which affect the worst case and likely case scenarios.

Social impacts and their significance were identified based on the Project information at the time of writing the SIA report and take into consideration the information provided through consultation. The predicted social impacts and their significance may change as more information about the Project is known and the Project is being constructed and operated. A monitoring program has been developed in order to verify if potential social impacts actually occur or not.



The significance of social impacts were assessed using the social risk matrix in Table 3. Further information explaining this methodology is provided in Appendix A.

Table 3 Assessment of Likelihood and Consequence of Identified Negative Social Impacts

Likelihood of Social Impact	Consequence of Social Impact				
	Insignificant	Minor	Moderate	Major	Extreme
Almost Certain	Medium	Medium	High	Excessive	Excessive
Very Likely	Low	Medium	High	High	Excessive
Likely	Low	Low	Medium	High	Excessive
Possible	Negligible	Low	Medium	High	High
Unlikely	Negligible	Low	Low	Medium	High
Very Unlikely	Negligible	Negligible	Low	Medium	Medium

2.7 Assumptions/Limitations/Exclusions for this Study

- The SIA has been developed as a 'snapshot' in time to provide a baseline for assessment of potential social impacts arising from the Project. Whilst every effort has been made to provide up to date and relevant data in this SIA, communities are in constant states of change and the information contained in this SIA can change rapidly;
- A large part of this report is based on 2011 Census data from the ABS. Where possible and relevant to the SIA data has also been confirmed through other qualitative sources including interviews with key stakeholders and knowledgeable persons;
- Data contained in this report has been drawn from publicly available sources, SIA stakeholders and advice from Vista Gold. Whilst care has been taken when using data provided by third parties, GHD accepts no responsibility for its accuracy;
- A medical practitioner has not been contracted to undertake any medical or psychological testing as part of this study. Any reference to medical, health, wellbeing or psychological impacts are based on the opinions of the person providing the information.



3. Workforce Profile

The Project is anticipated to run for 19 years with the construction workforce peaking at approximately 450 and an operational workforce of up to 350 personnel. Vista Gold has indicated a preference for a residential work force, and has a strong desire for their employment demographics to not consist of Fly-in / Fly-out (FIFO) or Drive-in / Drive-out (DIDO) employees. This objective was supported by Project Stakeholders in community consultation undertaken between April 2011 and September 2011.

3.1 Construction Phase

A contractor will be appointed to manage the construction phase. The appointed construction contractor will be responsible for determining the final workforce arrangement. For the purposes of this SIA the following construction workforce profile has been used for social impact assessment. This profile is based on current industry practice:

- ▶ The construction workforce will consist of a maximum of 450 and minimum of 270 workers.
- ▶ The majority of the construction workforce will be non-resident workers employed by the contractor. Whilst Vista Gold is committed to maximising local employment the temporary nature of the construction workforce means that it is likely that the majority of the workforce will be from outside Katherine. There is the potential for local people to access employment as part of the Project, but the majority of employment would be with the nominated contractor.
- ▶ Construction works will be normally carried out in 12 hour rotating shifts from approximately 6am to 6pm, 7 days per week.
- ▶ Night works may be required (for example for concrete pours during hotter months, or to catch up on schedule delays).
- ▶ Administration and management personnel will work a standard 5 x 2 day roster.

The range of skills required during construction will include the following:

- ▶ Construction Manager;
- ▶ Specialist Managers;
- ▶ Specialist engineers;
- ▶ Tradespersons (e.g. carpenters, electricians, boiler makers);
- ▶ Civil construction;
- ▶ Machine operators;
- ▶ Mobile plant operators;
- ▶ Labourers; and
- ▶ Health, safety and environment personnel.



3.1.1 Construction Accommodation

Vista Gold has undertaken a separate study into accommodation options to support the operational workforce. The results of this study have informed the following construction workforce accommodation strategy assessed in this report:

- Workers will be housed in a construction camp located within 25km of the Project Site. The location of this camp has not yet been decided. Vista Gold, or its contractor, will be responsible for providing the contracted workers accommodation. Workers will not be allowed to make their own arrangements.
- A small number of Vista Gold managerial and administration staff may choose to reside locally in the Katherine area.
- Vista Gold employees (managerial) and other support workers not employed directly by the contractor may use other forms of temporary accommodation available in Katherine and Pine Creek (such as caravan parks, holiday rentals and motels). This is expected to be on a periodic and temporary basis.
- Workers will be present on the Project site while on roster, and will return to the construction camp when off roster. Workers are also likely to visit Katherine and Pine Creek, on a limited basis, for shopping and entertainment purposes.

3.1.2 Recruitment

Construction will be undertaken by one or more contractors who will be responsible for:

- Recruitment of the workforce;
- Training, including apprenticeships and trade certificates as well as job specific requirements such as health and safety.

Due to the limited duration, the construction workforce is likely to be engaged on a FIFO or DIDO basis. Vista Gold will specify a preference for local and regional recruitment which will ultimately depend on the availability of workers locally and regionally with appropriate skills as well as the contractor's existing workforce.

3.1.3 Transport

Transportation arrangements for the workforce will be the responsibility of the selected contractor(s). It is expected that:

- Workers residing within driving distance will drive to site at the start of each roster;
- Workers residing beyond driving distance, will fly to Darwin at the start of each roster period and will be transported to site by bus;
- Workers residing in the construction camp will be transported to the site by bus for each shift.

There will be a small number of specialist trades people who will likely travel in their own vehicles to and from the mine site to bring specialist equipment. Similarly, a small number of managerial and advisory staff making occasional short-term visits to the site will travel to site in their own or rented vehicles.



3.2 Estimated Operation Workforce

An operational workforce of approximately 350 full-time workers is expected to be required. Vista Gold is committed to this workforce living and residing locally rather than operating on a FIFO or DIDO basis. The following operational workforce profile has been developed based on information provided by Vista Gold for impact assessment purposes:

- ▶ The required workforce of 350 full-time workers is estimated to comprise approximately 60 workers who are currently permanent residents of the local area and approximately 290 workers will be sourced from elsewhere;
- ▶ The operations phase of the mine is 13 years followed by subsequent closure and rehabilitation activities; and
- ▶ Operation workforce numbers are expected to increase to a peak of 350 over the life of the mine and will then be scaled down significantly to include only workers associated with closure and rehabilitation.

Operational staff will include the following skills:

- ▶ General Manager and executive assistant;
- ▶ Commercial Manager, accountants and administrative assistants;
- ▶ Manager of mining and mining superintendents;
- ▶ Mining engineers, mine planners, geologists and surveyors;
- ▶ Manager of Plant Process, metallurgical superintendents, production superintendents and plant staff;
- ▶ Laboratory superintendent and lab staff;
- ▶ Maintenance Manager, Mechanical engineers and plant maintenance staff;
- ▶ Electrical Superintendents, electricians, instrumentation technicians;
- ▶ Truck drivers;
- ▶ Stationary plant operators;
- ▶ Mobile plant operators;
- ▶ Mining labourers; and
- ▶ Other specialist support roles including health, safety and environment personnel and Human Resources.

3.2.1 Operational Staff Accommodation

Vista Gold has undertaken a separate study into accommodation options to support the operational workforce. The results of this study have informed the operational workforce accommodation strategy assessed in this report.



Vista Gold has indicated their desire for a residential work force but that they do not wish to own houses. They prefer their operational staff to not include FIFO or DIDO workers and would prefer their people (and therefore housing) to be integrated into the community, with an emphasis on making the accommodation both attractive and comfortable. To support this intent, a number of options for accommodation were investigated including either a fully residential or fully FIFO / DIDO option. The final recommendation from this study was that a 'hybrid' accommodation solution should be considered. This would consist of:

- ▶ 70 workers at the construction camp. This would accommodate mainly FIFO / DIDO personnel and provide an ability to quickly increase capacity and house overflow peak period personnel to meet mining needs or maintenance shut downs;
- ▶ A combination of both new and existing housing to support approximately 120 workers (family households with or without children). Workers would be accommodated in a mixture of:
 - New three and four bedroom houses located on existing vacant Katherine and region land
 - Existing (renovated if required) houses located in the Katherine and region land
 - Subject to real estate availability at the time of arrangement, a small contained development on Katherine land;
- ▶ 100 workers located in a Katherine based single person accommodation facility

This would provide for the 290 additional Vista Gold employees that would require accommodation (the remaining 60 personnel would be sourced locally).

The ultimate accommodation strategy adopted will be developed following further discussions with local and territory government agencies. For the Closure and Rehabilitation stage, accommodation for the 40 workers (plus catering, cleaning, facilities management staff) would be accommodated in either the previous FIFO / DIDO accommodation or in the Katherine based single person accommodation. This 'hybrid' solution has been used as the basis for impact assessment in this report.

3.2.2 Recruitment

Vista Gold has specified a preference for a local residential workforce. The extent to which that this can be achieved will depend on the availability of workers with appropriate skills and their desire to live on a permanent basis in the Katherine area.

Vista Gold is aware of the local and regional recruitment/employment agencies and will consult with them in facilitating local and regional employment opportunities.

Vista Gold will develop appropriate human resource policies for the residential workforce, local and regional employment opportunities, equal opportunity and Aboriginal and Torres Strait Islander employment issues.

Recruitment will commence approximately 6 months before start of operations, and will be ongoing during operations as the workforce continues to scale up and down to replace workers who retire or resign.

Indigenous Employment Opportunities

- ▶ Vista Gold will develop an Indigenous employment strategy.
- ▶ Vista Gold has committed to work with the Jawoyn Association to engage as many Jawoyn as possible in the mine workforce.



3.2.3 Transport

Vista Gold will negotiate with an appropriate contractor to supply transportation services to the Project however it is expected that:

- ▶ Most of the workforce residing in Katherine will be bussed to site at the start of each shift. A small number will use private vehicles; and
- ▶ Workers residing further afield will travel to Katherine at the start of each rostered period by driving personal vehicles to Katherine.

There will be a small number of specialist trades people who will be required to travel in their own vehicles to and from the mine site. Similarly, a small number of managerial and advisory staff making occasional short-term visits to the site will travel to site in their own or rented vehicles.

3.2.4 Training Opportunities

The provision of training opportunities during construction will be the responsibility of the selected construction contractor(s).

For operational staff, Vista Gold will develop appropriate training and employment policies and targets.

The training will be done in concert with both local and Territory government's agencies when possible. A list of those agencies identified to date are listed below in Table 24.



4. Social Baseline

4.1 Introduction

This section describes the existing social baseline characteristics for the communities of interest (including the Local and Regional Study Areas). This social baseline provides the basis on which social impacts will be assessed.

4.2 Planning context

4.2.1 Regional Planning

A summary of plans and policies that establish the regional planning context for the Project is provided below:

- **Katherine Land Use Study (under development):** - This study is under development by the recently formed NT Planning Commission (constituted 1 January 2013). The main objectives of the Planning Commission are to develop strategic plans to cater for growth, facilitate infill development through planning controls and to address housing affordability. A Consultation Paper for the Katherine region was released to the public on 14 June 2013. Vista Gold has provided input into the Discussion Paper¹

The Commission will undertake community engagement on this Consultation Paper in developing integrated strategic plans, guidelines and assessment criteria. In preparing an integrated strategic plan for Katherine, the Commission may identify future transport and utility corridors, provide guidance through master plans and support urban renewal². For further information see: <http://www.planningcommission.nt.gov.au/home>.

- **Territory 2030: Strategic Plan 2009** (NTG, 2009) – This plan set out the former Territory Government's direction for the next 20 years and was applicable to the Project during the major periods of public consultation on social impacts. Some key immediate priorities include a balanced housing market (appropriate availability and affordability), reforming education and health sectors and making genuine progress in regional and remote areas in terms of economic development.

The NT Government does not support the Territory 2030 as current policy. It does, however, support the use of the Plan as a guide and has developed its own set of policies relating to the key priority areas around housing, growing and working in the NT. There is currently no replacement for Territory 2030 as an overarching strategic document.

¹ James Teh, pers comm, 30 May 2013 – Manager Secretariat, Planning Commission

² <http://www.planningcommission.nt.gov.au/priorities>



- ▶ **Closing the Gap.** Closing the Gap is a commitment by all Australian governments to work towards a better future for Aboriginal and Torres Strait Islander peoples. It aims to close the gap of Indigenous disadvantage in areas such as health, housing, education and employment. As the Department responsible for Indigenous affairs, the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) is the lead Australian Government agency for *Closing the Gap*. Within the NT there is a Partnership Agreement between the Australian and Territory Governments that commits them to working together on this initiative. The NT Government is pursuing measures for *Closing the Gap* in the following areas: income management and welfare reform, law and order, family support, early childhood, improving child and family health, enhancing education and remote service delivery.³

4.2.2 Local Government

Local government areas within the Northern Territory were reformed in 2008 resulting in two classifications – Municipalities and Shires. The mine is located in the Roper Gulf Shire. The nearest townships are Katherine within the Katherine Municipality and Pine Creek within Victoria Daly Shire. The following local government plans have been referred to as part of this SIA.

Local Government Regional Management Plan – Big Rivers Region

This is a statutory instrument under the *Local Government Act* 2008. The Regional Management Plan (RMP) is a product of consultation between interested councils and the Department of Local Government (DLG)). The RMP (DLG, 2012) sets out the challenge for delivering services to the Katherine, Victoria Daly and Roper Gulf Shires, future opportunities, relevant local government legislation, local government cooperative arrangements and core local government services. Some key challenges for the region relevant to this Project include:

- ▶ Employment and training of Indigenous people providing services;
- ▶ Recruitment and retention of staff;
- ▶ Provision of sufficient housing for staff and sub-contractors, particularly in remote areas;
- ▶ Lack of all-weather roads; and
- ▶ Securing ownership of land.

Katherine Town Council Municipal Plan

The Katherine Municipal area covers an area of 7421 square kilometres⁴. The Katherine Town Council Municipal Plan 2013 (Katherine Town Council – (KTC), 2013) identifies the following Vision for Katherine: *'Katherine to be recognised as an innovative, vibrant and inclusive community'*.

³ <http://www.fahcsia.gov.au/sa/indigenous/progserv/ctg/Pages/default.aspx>

⁴ Katherine Town Council Website, Welcome to Katherine, viewed 26/15/2013 from <http://www.ktc.nt.gov.au/>



The following values are identified:

- ▶ Service: Council will strive to achieve excellence, quality and pride of service to the community in a cost effective, common sense and courteous way;
- ▶ Responsiveness: Council will be responsive to the needs of the community;
- ▶ Involvement: Council will provide avenues of participation for and be accessible to the community;
- ▶ Responsibility: Council will act with integrity and in a financially responsible, sustainable manner in the interests of the community;
- ▶ Equity: Council will treat and provide services to the community in an equitable manner; and
- ▶ Accountability: Council will make decisions on behalf of the community in an open and accountable way.

The plan identifies specific goals relating to the Council's key responsibilities under the *Local Government Act 2008*. These include infrastructure, community development, environment, and economic development. Katherine Town Council has identified the need to prepare for what is expected to be a major population and economic boom within the region, largely driven by the mining sector. This includes reference to the Mt Todd Gold Mine, and the likely residence of the workforce in Katherine. . The Council is working towards the release of a Katherine Strategic Land Use Plan with the Department of Lands, Planning and the Environment, and the NT Planning Commission to support well considered growth to match demand (KTC, 2013).

Roper Gulf Shire Plan 2012-2013

The Roper Gulf Shire covers an area of 186,000 square kilometres. The Roper Gulf Shire Plan 2012-2013 (Roper Gulf Shire, 2012) identifies the Council's priorities and responsibilities which include nine major Service Delivery Centres (Barunga, Beswick, Borroloola, Bulman, Jikminggan, Manyallaluk, Mataranka, Ngukurr, Numbulwar). This plan identifies priority community projects and commitments to improving regional service delivery. The vision for the region is "*Roper Gulf Shire Council – Sustainable, Viable, and Vibrant*". Key values identified are: Honest, Equality, Accountability, Respect and Trust.

The plan identifies a number of goals including:

- ▶ Strengthen quality of life in the Shire;
- ▶ Move towards sustainability;
- ▶ Care for our environment;
- ▶ Improve our infrastructure; and
- ▶ Good governance.

In 2010 the Council made a commitment to focus on building expertise and expanding their reputation over three years in four key areas: local jobs for local people, environment, counter disaster planning and youth.



Victoria Daly Shire Plan 2012-13

The Victoria Daly Shire covers an area of approximately 168,27km². The Shire Plan (Victoria-Daly Shire, 2012) describes the Council's direction and key goals to be achieved in the life of the plan. The Victoria Daly Shire includes the service delivery centres of Kalkarindji/Dagurangu, Nauiyu, Nganmarriyanga (Palumpa), Peppinmenarti, Pine Creek, Timber Creek Wadeye and Yarralin. The Vision for the shire is "Victoria Daly Shire: Moving Forward Together" and the core values are respect, integrity, honesty, openness and equality. The plan identifies the following strategic goals:

- To provide good governance, leadership and advocacy;
- To promote local employment and a strong regional economy;
- To provide high quality services within financial resources;
- To maintain and develop shires assets, natural resources and country; and
- To ensure strong, safe, healthy communities that respect culture and heritage.

4.3 Local Study Area

4.3.1 Katherine

Katherine has developed because of its strategic location on the transcontinental trade route that terminates in Adelaide at one end and Darwin's deep water port at the other. It is situated on the Katherine River and is a popular stop for many visitors and tourists to the Region. Its geographic location is a major influence on its economy and the town is a significant transport hub, tourist centre and service centre for a wide variety of regional industries including the mining and cattle industries (Northern Territory Government, 2007). It is a key Government administration centre providing health, education, housing and business development services to towns to the broader region, pastoral properties and outlying Aboriginal communities.

It is approximately three hours from Darwin and a major road junction, providing access west to the Ord River and Kimberley region of WA, north to Kakadu and Darwin and south to Alice Springs, South Australia and Queensland. Katherine will be the key service centre for the supply of resources to the Project and is located 55km from the Project Site.

4.3.2 Pine Creek

Pine Creek was established in the late 1800s as a result of the discovery of gold by the crew of the Overland Telegraph Line. Geographically the town is situated 220km south of Darwin and 90km north of Katherine at the junction of the Stuart and Kakadu Highways. Pine Creek will be a secondary service centre for the supply of goods and services to the Project and is located approximately 60km from the Project Site.

Pine Creek is part of the Victoria Daly Shire and includes the Aboriginal community of Kybrook Farm.

4.3.3 Community Values and Aspirations

Community values for Katherine and the adjoining shires of Roper Gulf and Victoria Daly are expressed through the community plans summarised in Section 4.2.2.



4.3.4 Demography (Population, Age, Gender, Family)

Key Points - Demography

- ▶ Katherine is the third largest urban area in the Northern Territory after Darwin and Alice Springs.
- ▶ According to the 2011 Census, the urban centre of Katherine has an area of 17.3km² with a resident population of 6,094 people. The town services a much wider regional area which include the local government areas of Roper Gulf Shire and Victoria Daly Shire.
- ▶ The town has a significant Indigenous community comprising 30% of the town's population. This percentage varies considerably depending on the season and key events of importance to the Indigenous population.
- ▶ Katherine's population has fluctuated historically for a variety of reasons which include population growth associated with key projects (such as the prior opening of the Mt Todd Gold Mine, rail infrastructure projects and population decline (associated with project closures and natural disaster events such as the floods of 1998). In the last five years the town has experienced a population increase of 3.6%.
- ▶ Katherine has low cultural diversity in terms of the percentage of residents who were born overseas (20.7%). It has a significant influx of visitors to the region as a result of tourism, mining fly-in-fly-out (FIFO) workers and seasonal workers.
- ▶ The community comprises a number of distinct groups: Non-residents including tourists, seasonal workers and FIFO workers; workers and families associated with the RAAF Base Tindal, some of whom live on base and some who live in Katherine; Indigenous people and non-Indigenous persons.
- ▶ The gender balance for the resident population within Katherine Local Government Area is relatively balanced with 50.8% of the population being male and 49.2% females.
- ▶ The Indigenous population demographic profile is very different to the non-Indigenous profile with a much higher proportion of people below 15 years of age and significantly lower proportions of the population surviving beyond middle ages.
- ▶ Family structures by type are comparable with Northern Territory and Alice Springs populations with the most common being couple families with children under the age of 15.

Historical Population Change

Historically, population growth in Katherine has varied. Katherine had strong population growth in the 1970s and 1980s and experienced major changes in size and composition between 1996 and 2001 census years due to the combined effects of closure of the Mt Todd Gold Mine by Pegasus in 1997 and flooding caused by Cyclone Les in January 1998. Following these combined events the population declined by 15% between 1996 and 2001 and has not recovered substantially since.

The floods and mine closure caused a major setback in the economic and social development of the town, and recovery has been slow. Population changes during this time included a large decline in people aged 15-44 years, ageing of the population, and an increase in the proportion of people who identify as Indigenous. By 2001 the employment profile had changed with mining down 80%, manufacturing down 45%, and public administration and defence down 7% (Australian Bureau of Statistics - ABS, 2007a).



Population

Katherine is the third largest urban area in the Northern Territory after Darwin conurbation including Palmerston and surrounds at 120,000 people and Alice Springs at approximately 25,000 (School for Social and Policy Research, 2008). The resident population for the Katherine Local Government Area, according to the 2011 census was 10,104 persons (ABS, 2011). This population includes the RAAF Base Tindal (15km South-east of Katherine) and the adjacent rural area.

Table 4 presents the resident population for the 2001, 2006 and 2011 census for the urban centres of Alice Springs, Darwin, Katherine, Pine Creek and the Northern Territory.

Table 4 Resident population (2001, 2006, 2011)

Urban Centre/locality	2001	2006	2011	2001-2006	2006-2011
	no.	no.	no.	%	%
Alice Springs	24,640	21,622	24,208	-12.2	10.5
Darwin	71,347	66,291	72,930	-7.1	9.3
Katherine	6,719	5,849	6,094	-12.9	3.6
Pine Creek	472	345	380	-26.9	7.4
Northern Territory	202,729	192,898	211,945	-4.8	9.9

NB: (a) Average annual growth rate (p) preliminary

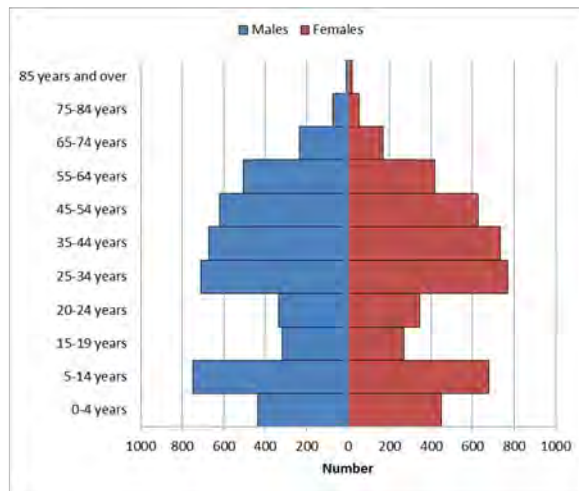
Source: ABS (2011)

Between 2001 and 2006 there was population decline throughout the Northern Territory. This impacted some areas more than others, for instance Pine Creek declined by 26.9% and Katherine by 12.9%. Despite this, in recent years the population has experienced significant growth enabling most areas to exceed the 2001 population. These include the Northern Territory (which had a population growth of 9.9%) and Darwin 9.3%. Katherine experienced a population decline between 2001 and 2006 that was significantly larger than that experienced by the Northern Territory (12.9% in comparison to 4.8%). Although in the past five years it has experienced growth at a rate of 3.6% this is significantly slower than the Northern Territory rate of 9.9%.

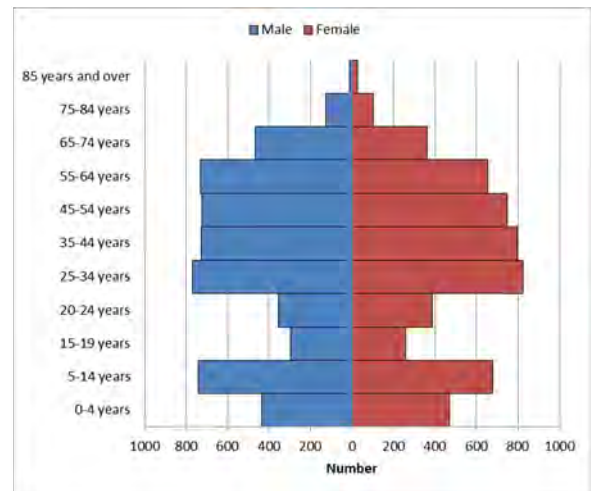
Residents versus Visitors

The number of residents in Katherine in comparison to the number of visitors and FIFO⁵ workers was compared using 2011 Census data. There were 9,187 persons (based on place of usual residence) and 10,698 (based on place of enumeration. This difference of just over 1500 persons (approximately 16% of the resident population) between those people who were recorded in Katherine on the night of the census and those who actually resided in Katherine at this time illustrates the temporary/seasonal nature of a significant proportion of the population (Figure 5). The temporal population when compared to the residential population are predominantly between the 25 and 64 year age group which is reflective of the numbers of FIFO workers.

⁵ Place of usual residence data excludes visitors and people working in the region on a "fly-in-fly-out" arrangement including a proportion of RAAF Base Tindal workers



Residential population



Temporal population (enumerated census data)

Figure 5 Population by Residents and Visitors, Katherine 2011

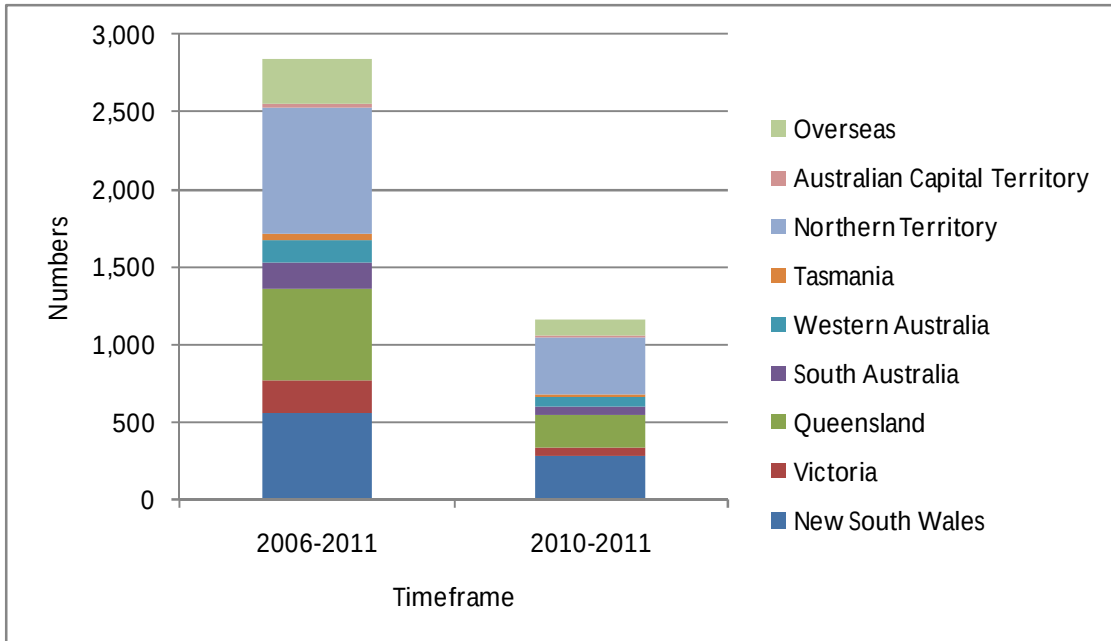
The RAAF Base Tindal is located 15km east of Katherine. RAAF personnel and their families are estimated to constitute around 2,000⁶ people, approximately one fifth of the Katherine population. Katherine's growth over recent years is partly attributed to RAAF Base Tindal.

Mobility

Katherine has a highly mobile population with a high percentage of persons who had changed their residence within one and five years previous to the 2011 census. Of Katherine residents a total of 60.99% of people had changed addresses in the last 5 years compared to 53.14% of people in the Northern Territory. Of these people, 61.57% had moved to Katherine from another location within Australia; 29.54% had changed addresses within the Katherine SLA and 7.12% moved from outside of Australia.

Figure 6 shows the number of persons moving to Katherine from the various states and overseas categories for the time periods 2006-2011 and 2010-2011. The most significant contributor to migration inflows to Katherine are from New South Wales and Queensland. Consistent with Australian demographic trends the most likely reasons for these in-migrations are work related.

⁶ Based on SIA Consultation undertaken during September, 2011

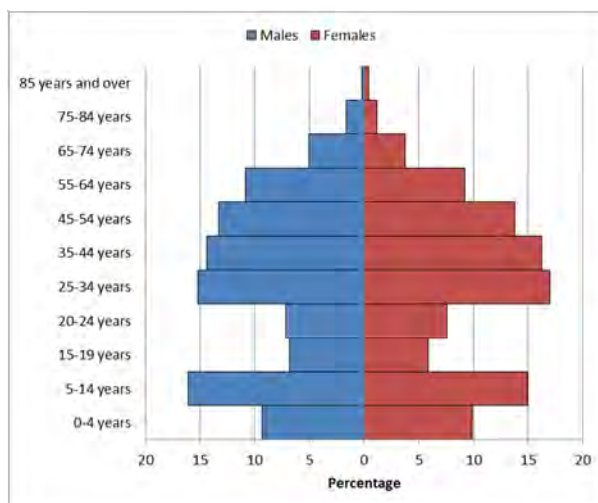


Source: ABS (2011)

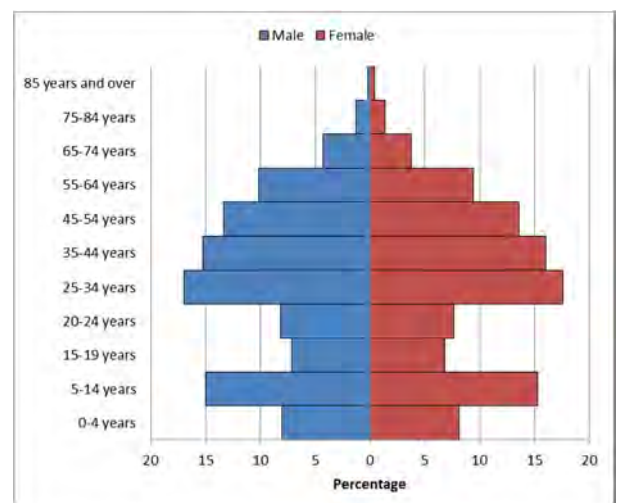
Figure 6 Number of persons moving to Katherine, within 1 and 5 years prior to 2011

Age-Sex Composition

The age composition of the Katherine residential population is consistent with that of the greater Northern Territory, as illustrated in Figure 7. Katherine has a slightly higher percentage of children aged between 0 and 14 years. Although the population of working age (25 to 65 years) is slightly lower for the Katherine area these numbers are supported by the temporal population due to the numbers of FIFO workers.



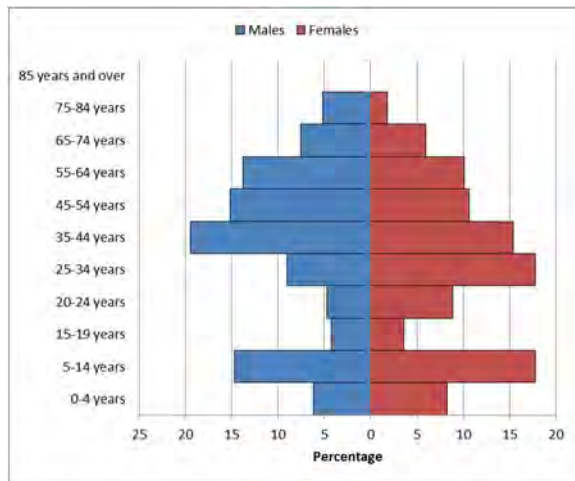
Katherine



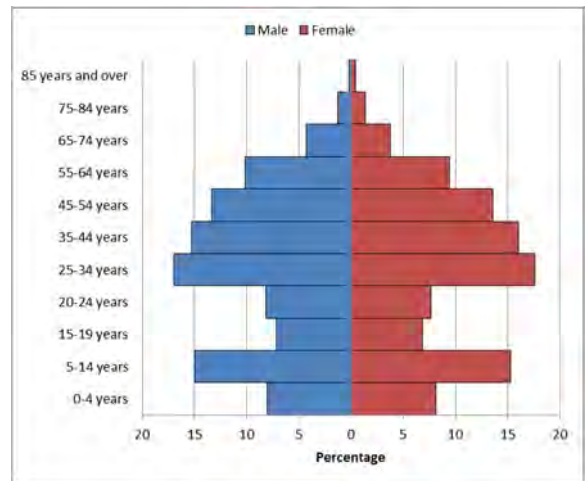
Northern Territory

Figure 7 Population by Age and Sex, Katherine and Northern Territory, 2011

The residential population of Pine Creek has a median age of 37, this is significantly higher than that for the greater Northern Territory which is 31. The population composition of Pine Creek compared to the Northern Territory presented in Figure 8 illustrates a higher percentage of residents in the age range of 65 to 84 years and a smaller percentage in the age range of 15 to 24 years when compared to the Northern Territory.



Pine Creek

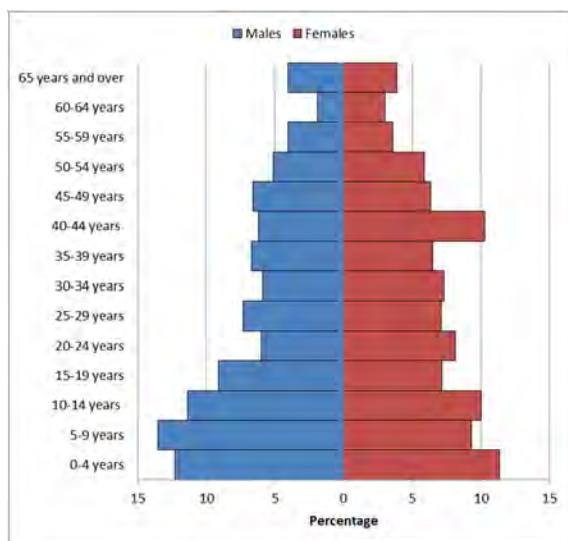


Northern Territory

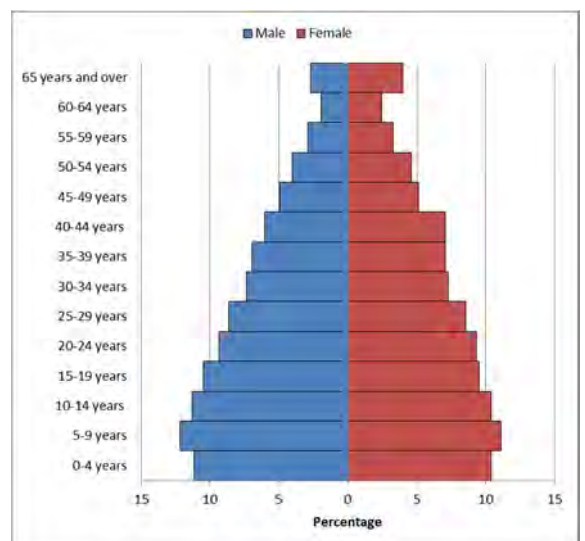
Source: 2011 Census

Figure 8 Population by Age and Sex, Pine Creek and Northern Territory, 2011

Figure 9 shows the Katherine Indigenous population by age and sex in 2011 in comparison to the Northern Territory. The median age of the indigenous population of Katherine is 25 while for the Northern Territory it is slightly younger at 23. Overall the population composition is similar between the two areas, although there are slightly fewer residents in Katherine between the ages of 25 to 44 years. The Northern Territory has a greater proportion of residents aged 10 to 24 years.



Indigenous population of Katherine

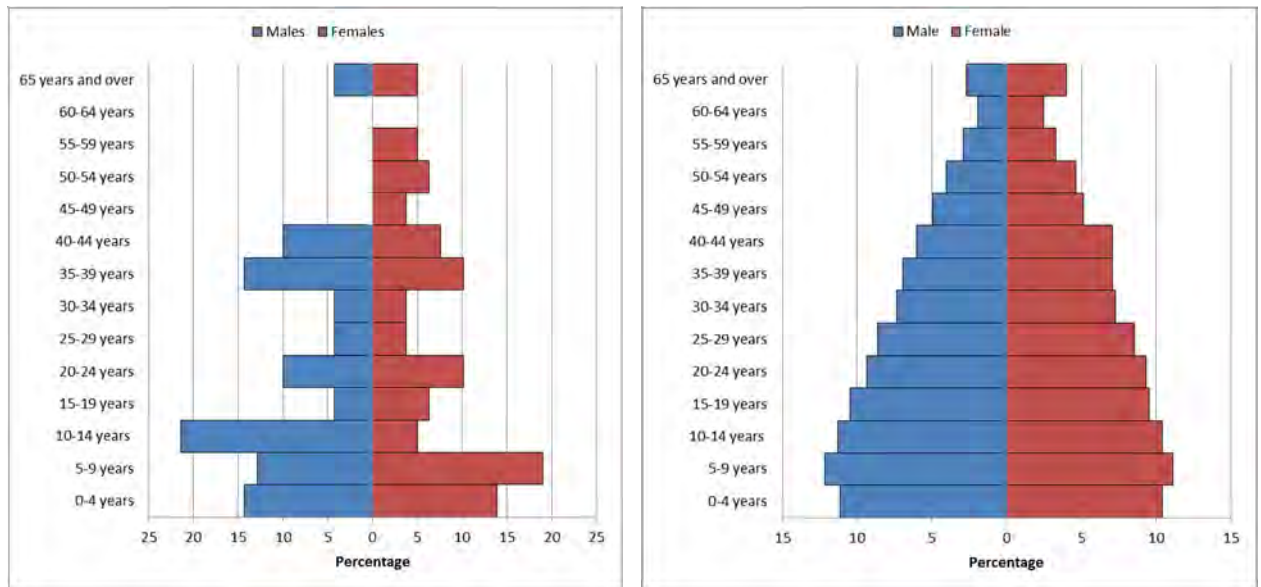


Indigenous population of Northern Territory

Source: 2011 Census

Figure 9 Indigenous Age and Sex, Katherine and Northern Territory

Figure 10 shows the Pine Creek Indigenous population by age and gender in 2011 compared to that of the greater Northern Territory. The population number is significantly smaller than that of the greater Northern Territory and this has slightly distorted the data with a number of age groups (particularly males) not having any residents. The population composition however does reveal a very young population when compared to the Northern Territory, particularly below the age of 19.



Indigenous population of Pine Creek

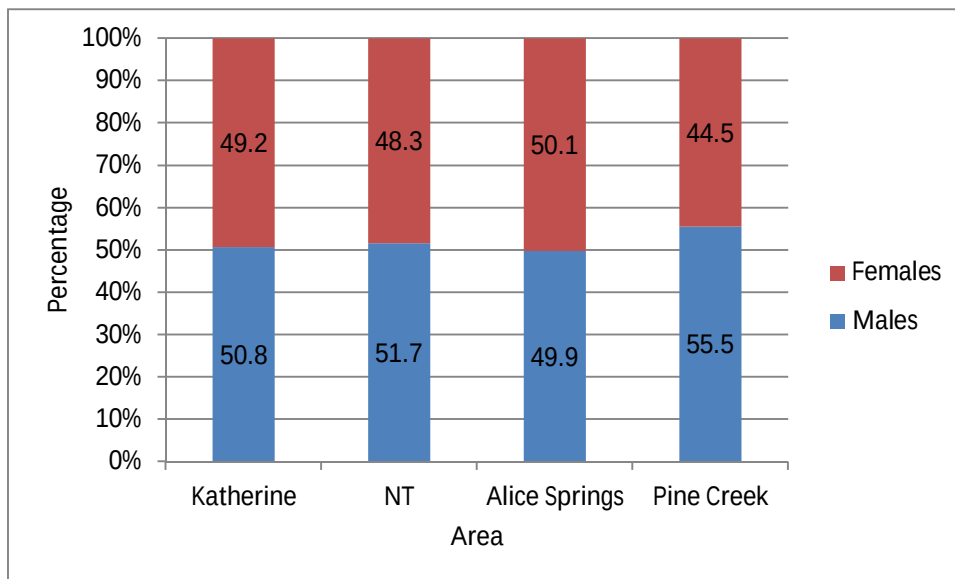
Indigenous population of Northern Territory

Source: 2011 Census

Figure 10 Indigenous Age and Sex, Pine Creek and Northern Territory

The above figures show the percentage of Indigenous people by age and gender for Katherine and Pine Creek in comparison to the Northern Territory. Overall, there are generally less people who are of Aboriginal and Torres Strait Islander (ATSI) descent in older age groups and a higher percentage of people of ATSI descent in the younger age groups. This is consistent with differences in mortality and life expectancy between the Indigenous populations and non-Indigenous populations in the Northern Territory with the Indigenous populations having a larger proportion of the population in the younger age groups and significantly less of the population surviving through to older age groups.

Figure 11 shows the balance between males and females in Katherine for residents. Katherine has slightly more males than females and this was consistent with the gender balance for the Northern Territory. Pine Creek has the highest percentage of males to females at 55.5%. This is likely to reflect the location of the Crocodile Gold Mine in Pine Creek and the higher instance of male FIFO workers.



Source: 2011 Census

Figure 11 Male-Female Ratio, Katherine, Pine Creek, Northern Territory, Alice Springs

Indigenous Population

The Indigenous population in 2011 constituted just fewer over 25% of the population in Katherine and 39% of the population in Pine Creek (Table 5). This is significantly higher than for the Northern Territory at 26.8% of the population stating themselves as being Indigenous.

Table 5 Indigenous Population Katherine LGA 2011 Census

	Katherine				Pine Creek			
Indigenous/Non-Indigenous	Male	Female	Total	%	Male	Female	Total	%
Indigenous	1,118	1,226	2,344	25.5	70	79	149	39.1
Non-Indigenous	3,088	2,912	6,000	65.3	135	85	220	57.7
Indigenous status not stated	456	387	843	9.2	6	6	12	3.1
Total	4,662	4,525	9,187	100	211	170	381	100

Source: 2011 Census

Cultural Diversity

Katherine has a slightly lower proportion of persons born overseas (20.7%), when compared to the Northern Territory 25.4%. The main countries of birth of those born overseas were the United Kingdom (2.2%), Philippines (1.9%) and New Zealand (1.8%). Over 20% of residents speak a language other than English including those that spoke Australian Indigenous languages.

Although Katherine has a low relative percentage of persons born overseas, it has a high proportion of Indigenous people (25.5%) and a seasonally high influx of visitors and tourists with just over 1500 additional people recorded on census night in 2011. This seasonal population adds to the existing cultural diversity of the Town which was described by one stakeholder as being 'very cosmopolitan'.



Family Composition

Table 6 summarises family composition within both Katherine and Pine Creek. In summary there were 2,116 families in Katherine and 67 families in Pine Creek. The most common type of family in Katherine and Pine Creek is couple families with children under 15 followed by couple families without children under the age of 15. Generally the family composition in both Katherine and Pine Creek is comparable with those of the Northern Territory. The key areas of difference are a relatively higher proportion of couple families without children and one-parent families in Katherine.

Table 6 Family Structures by Type, 2011

Type	Katherine	Pine Creek	Northern Territory	Alice Springs
Couple families with children under 15 and/or dependent students	805 (38.0%)	21 (31.3%)	17,712 (36.9%)	2,076 (35.1%)
Couple families with no children under 15 and/or dependent students	151 (7.1%)	4 (6.0%)	4,533 (9.4%)	580 (9.8%)
Couple families without children	771 (36.4%)	28 (41.8%)	16,310 (34.0%)	2,117 (35.8%)
One parent families with children under 15 and/or dependent students	263 (12.4%)	10 (14.9%)	5,734 (11.9%)	689 (11.6%)
One parent families with non-dependent children only	100 (4.7%)	4 (6.0%)	2,876 (6.0%)	335 (5.7%)
Other families	26 (1.2%)	0	866 (1.8%)	120 (2.0%)
Total families	2116 (100%)	67 (100%)	48,031 (100%)	5,917 (100%)

Source: 2011 Census

4.3.5 Labour Market (Education, Training and Employment)

Key Points Labour Market

Education and training

- ▶ 42.0% of the Katherine population aged 15 and over had some type of post-school qualification. This is similar to the Northern Territory population (41.3%), however qualifications tended to be of Certificate and Diploma levels than university qualifications such as Bachelor Degrees and Postgraduate qualifications.
- ▶ Of the Katherine population aged 15 years and over, 36.8% had attended year 12. There was no significant difference between male and female attendance.
- ▶ The most common field of study was Engineering and related technologies, followed by Management and Commerce. This mirrors data for the Northern Territory with the most common field of study being Engineering and Related Technologies (17.43%) followed by Management and Commerce (11.43%).

- ▶ The Katherine Region accounts for 11% of Vocational Education and Training (VET) Students in the NT in 2007. Since 2004 the number of students studying in the region has increased at an average rate of 11% per annum which is significantly higher than the rate for the NT rate at 1.3%. VET participation in Katherine is concentrated more in the lower-level qualifications than is the case for the NT as a whole. Certificate I and II represent 58% of training undertaken in the Region compared to 43% for the NT.
- ▶ The supply of skills since 2002 has increased to the Region through education and training. Training is generally occurring in areas linked to major industries in the Region. While the supply of skills has increased so has the number of job-seekers.
- ▶ The estimated average wage in 2008 for individual income earners was \$41,295 per annum, or \$794.13 per week. Based on 2011 Census data, the median individual income was \$759 per week and the median household income was \$1,534 per week. In contrast these figures were significantly lower for the indigenous population. The median individual income was \$301 and median household income \$921.

Labour demand

- ▶ Employment is concentrated in the service centre of Katherine.
- ▶ The growth of jobseekers is concentrated in the Indigenous population (approximately 88% of unemployed job seekers in the Katherine Region) because there has been a strong decline in the overall number of non-Indigenous jobseekers. Unemployment rates have steadily decreased since 1996 to the current rate of around 3.2% unemployment in 2010.
- ▶ 25-34 years was the most common age bracket for currently employed people. Around 12% of the labour force in Katherine in 2011 was Indigenous.
- ▶ Public administration and safety (including Defence) was the largest industry of employment in Katherine accounting for 25.5% of employment. Of this approximately 503 were employed in Defence in 2011. Katherine also has high proportions of people employed in Health Care & Social Assistance and Retail Trade.
- ▶ The main occupations of employment in Katherine are Technicians and Trades Workers (19.6%) and Managers (12.6%). The main industries of employment for Indigenous people in Katherine in 2011 were Health Care and Social Assistance, Public Administration and Retail.
- ▶ There were a range of identified skill shortages in the Katherine Region including in the Public Administration and Safety, Defence, Health care social and assistance and Education and Training industries.
- ▶ The majority of job advertisements for the Katherine Region were for semi-skilled and unskilled positions, not identified as being in short supply in Katherine or the Northern Territory. This may indicate that currently employers look elsewhere for skilled labour.
- ▶ In the neighbouring areas Victoria Daly and Roper Gulf Commonwealth Development Employment Projects is a major source of employment.



The labour market can be viewed in terms of supply and demand factors. The supply of labour can be profiled using information on the availability of both skills and jobseekers in a region. The following characteristics of supply are provided:

- Education;
- Vocational education and training;
- Apprenticeships and traineeships; and
- Jobseekers.

Education

The education profile of Katherine adults over 15 years was generally lower than for Alice Springs and the Northern Territory (Table 7 and Table 8) with 36.8% of residents having completed year 12 compared to 39.9% for Northern Territory and 45.0% for Alice Springs. Overall, residents of Katherine had a level of post school qualifications that was consistent with the rest of Northern Territory (42.0% compared to 41.3%), however these tended to be more at the certificate and diploma level than at the postgraduate and graduate certificate level.

The numbers and percentages of attendees at educational institutions in Katherine are profiled in Table 9.

Table 7 Highest Level of School Attended

Level of school attended	Katherine	Pine Creek	Northern Territory	Alice Springs
Year 12 or equivalent	2,442 (36.8%)	74 (26.1%)	62,499 (39.9%)	8,429 (45.0%)
Year 11 or equivalent	772 (11.6%)	39 (13.7%)	18,447 (11.8%)	2,396 (12.8%)
Year 10 or equivalent	1,466 (22.1%)	58 (20.4%)	29,879 (19.1%)	3,361 (17.9%)
Year 9 or equivalent	441 (6.6%)	35 (12.7%)	11,996 (7.7%)	1,030 (5.5%)
Year 8 or below	518 (7.8%)	36 (12.7%)	11,996 (7.7%)	1,030 (5.5%)
Did not go to school	85 (1.3%)	6 (2.1%)	2,390 (1.5%)	2,439 (13.0%)
Highest year of school not stated	909 (13.7%)	36 (12.7%)	21,953 (14.0%)	2,439 (13.0%)
Total	6,633	284	156,504	18,746

Source: 2011 Census



Table 8 Level of Post-School Qualifications Achieved: Percentage of Total Population Aged 15 Years and over

Qualification	Katherine	Pine Creek	Northern Territory	Alice Springs
Total population over the age of 15	6877	292	162,809	19,613
Postgraduate Degree	105 (1.5%)	0	4,308 (2.6%)	718 (3.7%)
Graduate Diploma and Graduate Certificate	102 (1.5%)	9 (3.1%)	2,920 (1.8%)	479 (2.4%)
Bachelor Degree	639 (9.3%)	12 (4.1%)	16,959 (10.4%)	1,483 (13.1%)
Advanced Diploma and Diploma	481 (7.0%)	9 (3.1%)	10,656 (6.5%)	1,483 (7.6%)
Certificate	1,492 (21.7%)	65 (22.3%)	30,750 (18.9%)	3,819 (19.5%)
Inadequately Described/Not Stated	81 (1.0%)	4 (1.4%)	1,614 (1.0%)	212 (1.1%)
Total with qualifications	3,594 (42.0%)	99 (33.9%)	67,207 (41.3%)	9,275 (47.3%)

NB: Excludes schooling up to Year 12, excludes persons with a qualification out of the scope of the Australian Standard Classification of Education (ASCED) and includes 'Certificate III & IV, nfd'. (d) Includes 'Certificate I & II, nfd'.

Source: 2011 Census

Table 9 Educational Institution Attendance, Katherine

Education Institution	Persons	Percentage
Pre-school	137	4.2
Infants/Primary	933	28.9
Secondary	426	13.2
Technical or Further Educational Institution	126	3.9
University or other Tertiary Institutions	200	6.2
Other type of educational institution	29	0.9
Type of educational institution not stated	1,380	42.
Total	3,231	100

Source: 2011 Census

The most popular field of study in 2011 in Katherine was engineering and related technologies at 17.43% followed by management and commerce at 11.46% (Table 10).



Table 10 Technical Fields of Study: 15 Years and over Katherine

Technical Field of Study	Male	Female	Total	Percentage
Engineering & Related Technologies	650	33	683	17.43%
Management & Commerce	142	307	449	11.46%
Health	68	299	367	9.36%
Society & Culture	114	236	350	8.93%
Education	74	242	316	8.06%
Food, Hospitality & Personal Services	91	99	190	4.85%
Agriculture, Environmental & Related Studies	98	63	161	4.11%
Architecture & Building	155	3	158	4.03%
Creative Arts	28	32	60	1.53%
Information Technology	35	14	49	1.25%
Natural & Physical Sciences	22	26	48	1.22%
Field of study inadequately described	35	12	47	1.20%
Mixed Field Programmes	0	3	3	0.08%
Field of study not stated	556	482	1,038	26.49%
Subtotal	556	1,851	3,919	100.00%

Source: 2011 Census

Vocational Education and Training

The number of VET students in the Katherine region (including Victoria -Daly, Katherine and Elsey Shires) for the period 2004 to 2007 is shown in Table 11.

Table 11 VET Students Katherine Region (2003-2007)

	2004	2004	2006	2007
Katherine Region	1962	2435	2651	2707
NT	22579	23409	23019	24376

Source: Department of Business and Employment – DET, 2008, p167

Apprenticeships and Traineeships

Apprenticeships/traineeships offer opportunities for anyone of working age to train, study and earn an income in a wide range of occupations and trades. They are available in more than 500 occupations and provide nationally recognised training, developed by industry.

For the Katherine Region there were 238 apprentice/trainee commencements in the region in 2007, an increase of 17% from 2002. The region accounts for 9% of total commencements in the NT for 2007, the same proportion as five years ago (DET, 2008).



In 2007, 270 apprenticeships/trainees were in training in the Region. Of these 16% were in automotive, 14% in building and construction, 14% in business and clerical, 14% in utilities. The overall number of students in training has increased at a rate of 61% between 2002 to 2007 suggesting that the supply of skills will increase in the coming years (DET, 2008).

Job Seekers

Profiles of job seekers in the Region compared to the Northern Territory and Australia is shown in Table 12. This shows a higher percentage of long-term unemployed and a higher percentage of Indigenous job-seekers.

In 2010 Katherine had approximately 168 persons identified as unemployed or 3.2% of the population. This percentage was slightly higher than for Alice Springs of 2% but lower than for the Northern Territory of 4% (Table 13).

Time Series Labour Force Data for Katherine show declining unemployment rates between 1996 and 2006 (Table 14).

Table 12 Jobseeker Characteristics (September 2007)

Jobseeker Characteristics	Katherine Region (Victoria, Gulf Katherine and Elsey Shire)	Northern Territory	Australia
Duration			
Short-term	188	1,766	130,292
Long-term	482	3,668	170,398
Total	670	5,434	300,690
% Long-term	71.9	67.5	56.7
Indigenous status			
Indigenous	87.8	75.6	10.6
Non-Indigenous	12.2	24.4	89.4
Gender			
Male	60.3	59.3	61.8
Female	39.7	40.7	38.2
Age (%)			
15-19	9.7	10.2	12.3
20-24	13.4	16	17.1
25-44	54.9	52.1	41.1
45+	21.9	21.7	29.5

NB: Region is based on postcode mapped to ABS regions. Data are an approximation only. Jobseekers are derived from Newstart Allowance and youth allowance recipients by excluding all people who did not receive a payment due to their own and/or their partner's income, or where applicable parental income and all those known not to be required to search for work. It is optional for customers to identify as Indigenous, therefore these Indigenous indicators may represent an undercount. Short-term income support duration is defined as less than 1 year.

Source: (Department of Education, Employment and Workforce Relations – DEEWR, 2008)



Table 13 Labour Force, Employment and Unemployment 2010

Location	No. Persons Unemployed/ Percentage December 2009	No. Persons Unemployed/ Percentage December 2010	Labour Force 2010
Katherine	233 (4.4%)	168 (3.2%)	5,261
Alice Springs - Charles	77 (2.5%)	61 (2.0%)	3106
Northern Territory	4,800 (3.8%)	3,700 (4.0)	125,000

Source: DEEWR (2010)

Table 14 Time Series Labour Force Data for Katherine and Northern Territory

Census Figures	Katherine (T)			Katherine (non-urban)			Lower Top End			Northern Territory		
	1996	2001	2006	1996	2001	2006	1991	2001	2006	1991	2001	2006
Total Labour Force	4,941	4,583	4,386	3,241	3,493	3,487	8,182	8,076	7,873	89.6	96.1	98.4
Employed ('000)	4,584	4,274	4,192	2,985	3,265	3,264	7,569	7,569	7,456	83	90.4	94.2
Unemployed ('000)	357	309	194	256	228	223	613	537	417	6.6	5.7	4.2
Unemployment Rate (%)	7.1	6.7	4.5	7.9	6.5	6.4	7.5	6.6	5.3	7.4	5.9	4.3
Participation Rate (%)	64.3	65.6	59.4	52.7	49.4	48.5	59.2	57.5	54.0	63.0	63.0	61.0

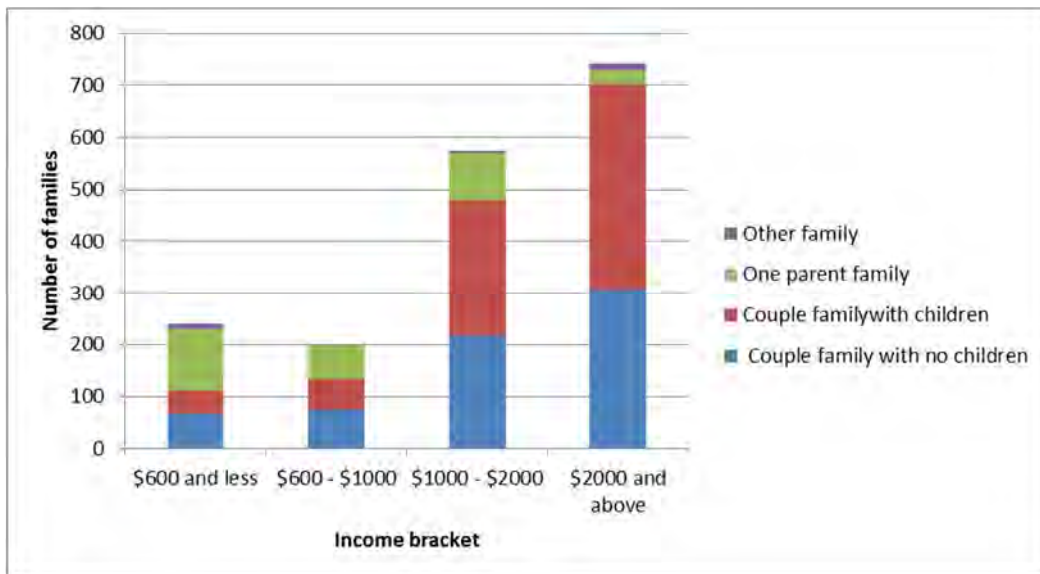
NB: Based on ABS (2007a)

Source: Northern Territory Government (2008)

4.3.6 Income

According to the 2011 Census data, the median individual income was \$759 per week and the median household income was \$1,534 per week. For Pine Creek the median individual income was \$681 and the median household income \$1,142.

Figure 12 shows the median weekly household income by income category and family type. The largest number of families earn over \$2,000 per week, however significant proportions of the population also earn less than \$1,000 per week.

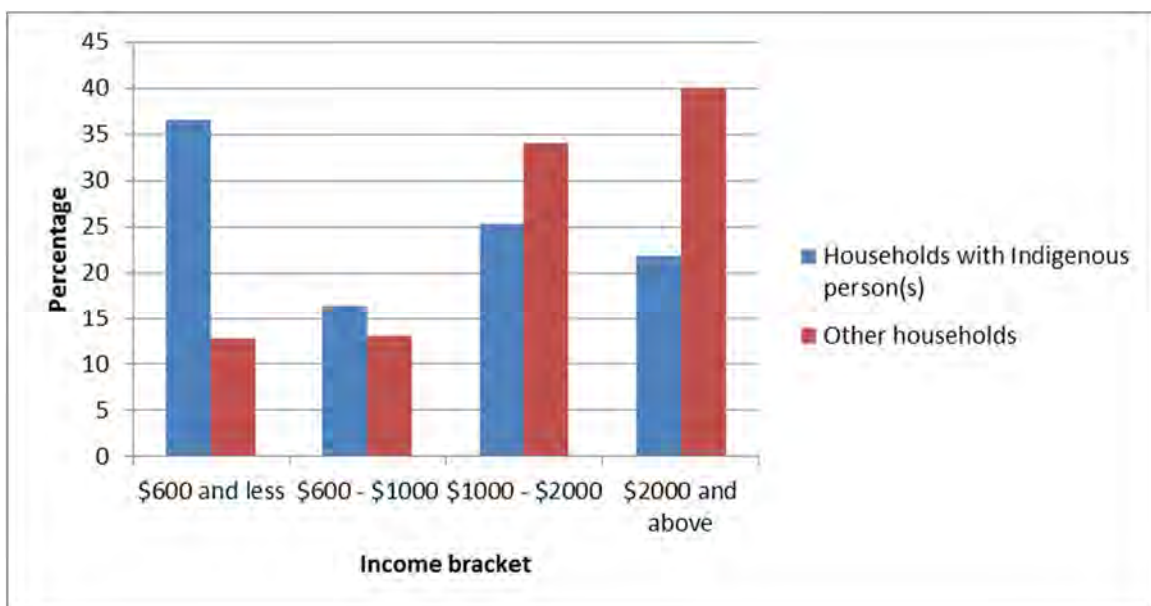


Source: 2011 census

Figure 12 Household Income (\$/week) by Family Composition, Katherine

According to the 2011 census, the median individual income for Indigenous persons was \$301 per week and the median household income was \$921 per week.

Figure 13 shows the median weekly household income for households with Indigenous persons compared to other households. This shows the significant difference between these two populations in terms of income. Households with Indigenous person had larger relative proportions within the household income brackets of <\$600 and \$600-\$1,000 per week.



Source: 2011 census

Figure 13 Household Income for Households with Indigenous Persons, Katherine 2011

Labour Demand

Labour markets function through the interaction of workers and employees. Regional labour markets in the NT are small and concentrated in certain sectors. Employers in mining, infrastructure and other projects are often unable to find sufficient numbers of local workers with the required skills in the region and there is often a long lead time in training new workers. Labour demand in the Katherine region has been profiled in terms of the following indicators:

- ▶ Skill profile; and
- ▶ Job advertisements.

The Katherine region occupation and industry profiles show the types of skills that were in the region's workforce at the time of the 2011 census.

Industry by Employment for Katherine

Employment by industry data shows the industry sections where people are employed and where employment opportunities lie within the region (Figure 14). The data is influenced by factors such as rate of economic growth, structural change in the economy, the effects of technology, labour market flexibility and changes in local and global demand. Currently employment within the mining sector is a very small part of the overall existing employment profile for Katherine.

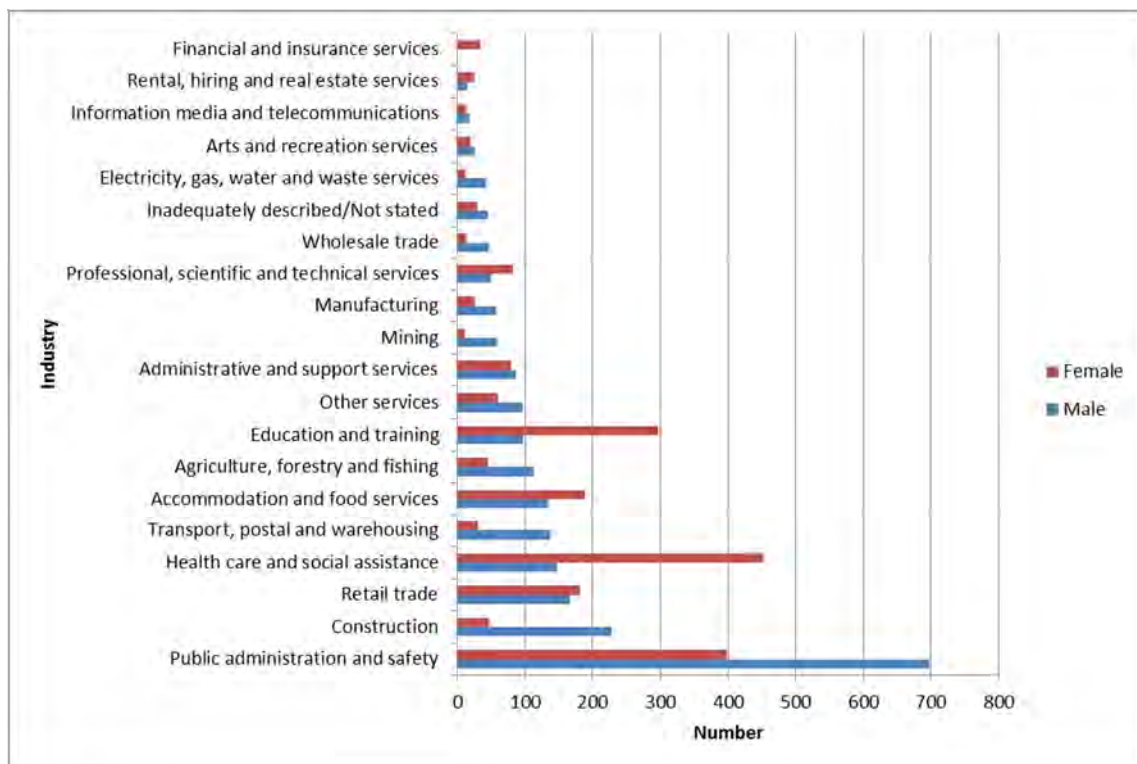


Figure 14 Industry of Employment by Sex, Katherine 2011

Table 15 shows that the majority of people in Katherine are employed in Public Administration and Safety namely Defence and State Government Administration.



Table 15 Disaggregated Employment by Industry Katherine Region 2011

Industry	No. of People Employed	% of Total Employment
Public Administration and Safety		
Defence	503	12.5
Public Administration	441	11.0
Public Order and Safety Services	110	2.7
Health Care and Social Assistance		
Other Social Assistance Services	222	5.5
Medical and other Health Services	171	4.3
Hospitals	149	3.7
Residential Care Services	58	1.4
Retail Trade		
Other store based retailing	155	3.9
Food retailing	120	3.0
Motor vehicle retailing	53	1.3
Fuel retailing	13	0.3

Occupation of employed workers

Katherine has slightly higher percentages of Managers, Community and Personal Service Workers and Technicians and Trades Workers to the Northern Territory population and lower percentages of Professionals and Labourers (Table 16).

Table 16 Occupation of Employed Persons as a Percentage of Total Employed Persons, Katherine 2011

Occupation of Employed Persons	Katherine (%)	Northern Territory (%)
Managers	11.4	12.0
Professionals	17.1	19.9
Technicians and Trades Workers	17.9	15.1
Community and Personal Service Workers	15.3	13.4
Clerical and Administrative Workers	14.4	14.7
Sales Workers	6.4	6.8
Machinery Operators and Drivers	5.6	6.1
Labourers	9.4	9.6
Inadequately Described/Not Stated	2.6	2.4
Total	100	100

Source: 2011 Census



Skills Shortages

The Northern Territory Labour Economics Office, under the auspices of the Department of Education, Employment and Workplace Relations (DEEWR, 2010) publishes the *Skills Shortages: Northern Territory* report. Table 17 identifies the skills shortages of possible relevance to the Project based on the NT Occupation Shortage List 2011 (Department of Business and Employment – DEB, 2008).

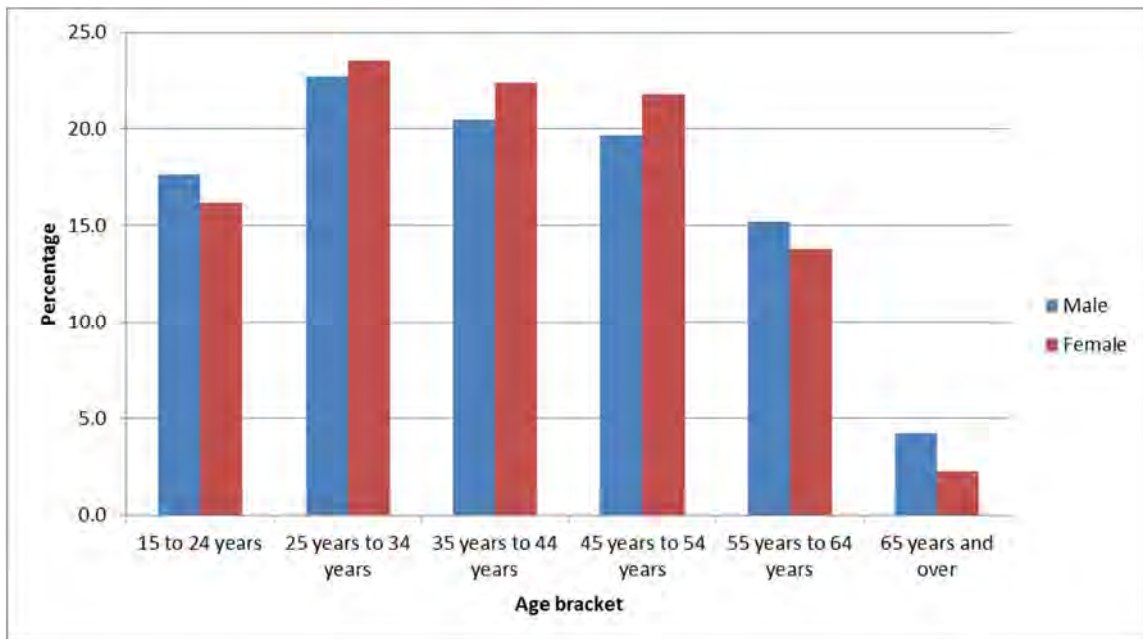
The number of job advertisements shows which skills are needed and where shortages exist. In the year 2006/2007 nearly 1,420 jobs were advertised for the Katherine Region with the most common ones being Public servants (9.3%), Farm hands (8.5%), General labourers (6.9%), and Sales representatives (6.3%). Other jobs advertised included construction plant operators, truck drivers, car parts and accessories fitters, carpenters and joiners.

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

Figure 15 shows the relative proportion of wage and salary earners by age and gender for Katherine. The largest proportions of wage and salary earners were in the age brackets of 25 to 34 years and 35 to 44 years.

Table 17 Skills Shortages in Northern Territory at March, 2011

Professional occupations in shortage (of possible relevance to the Project)	Technicians and trades workers occupations in shortage (of possible relevance to the Project)
Construction project manager	Carpenters
Engineering manager	Electricians
Production manager (mining)	Plumber
Child Care centre manager	Child care worker
Nursing clinical director	Cabinet maker
Licensed club manager	Dental assistant
Engineers (electrical, structural, mechanical, mining)	Earthmoving plant operator
Early childhood pre-primary school teacher	
Primary school teacher	
Dental specialist	
Physiotherapist	
General medical practitioner	

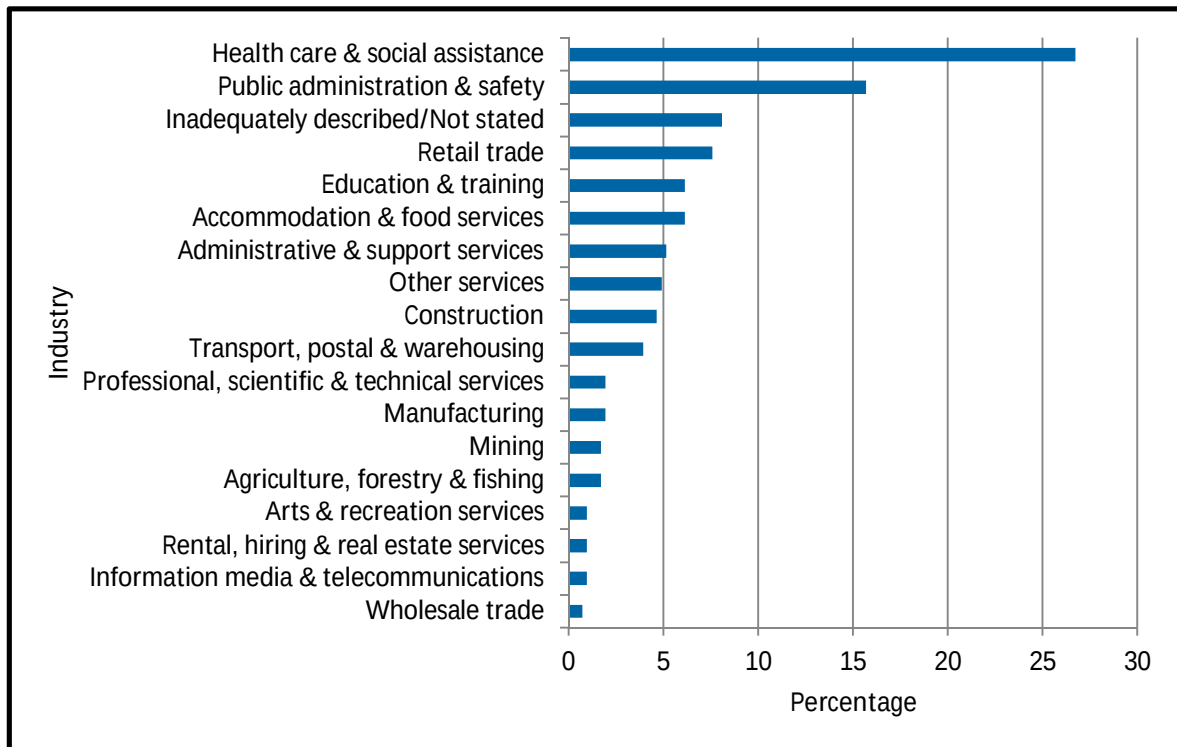


Source: 2011 Census

Figure 15 Wage and Salary Earners by Age and Sex, Katherine LGA 2011

Indigenous Employment and Labour Force

The most common industry of employment for Indigenous persons in Katherine is Health care and social assistance (Figure 16).



Source: 2011 Census

Figure 16 Industry of Employment Indigenous Persons, Katherine 2011



Table 18 shows a summary of the Indigenous Labour Force in Katherine by age and employment status.

Table 18 Katherine Indigenous Population Labour Force in 2011

Age Bracket	Employed	Unemployed	Total Labour Force	Not in Labour Force	Labour Force Not Stated	Total
15-24 years	100	57	157	183	15	512
25-34 years	118	55	173	127	26	499
35-44 years	146	38	184	143	26	537
45-54 years	105	24	129	134	13	405
55-64 years	42	4	46	89	9	190
65 years and over	6	3	9	81	7	106
Total	517	181	698	757	96	2,249

Source: 2011 Census

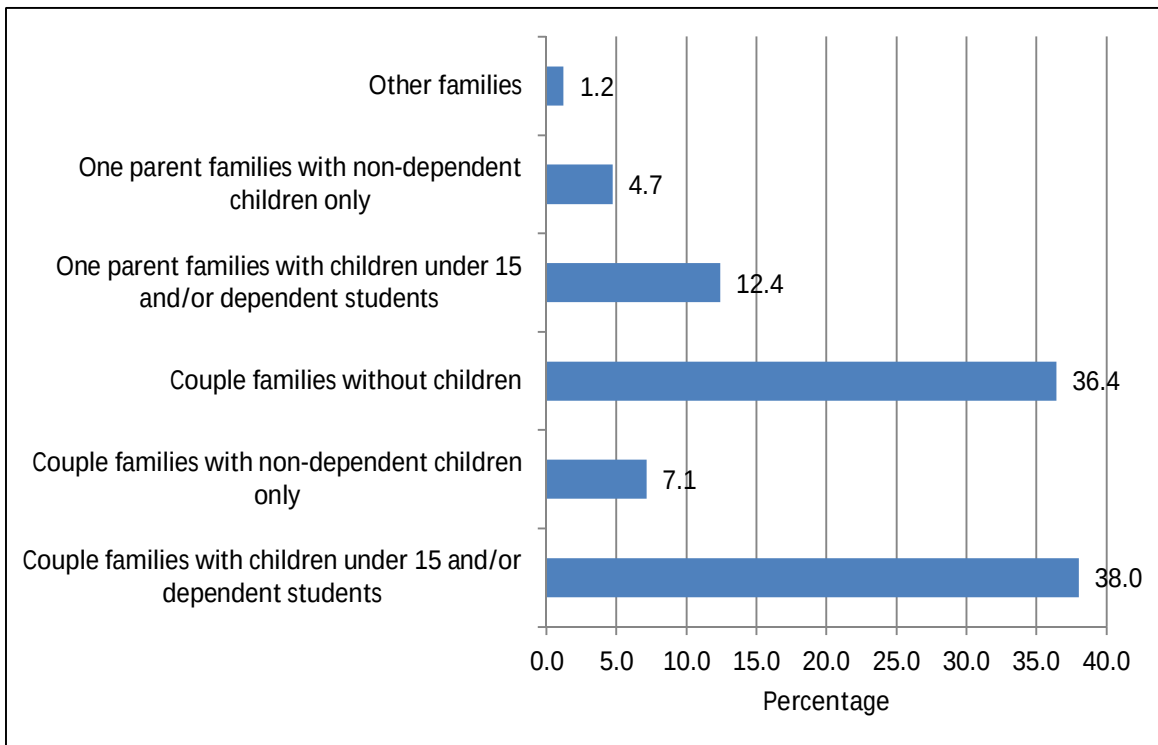
4.3.7 Housing and Accommodation

Key points Housing and Accommodation

- ▶ The most common household type in Katherine is couple families with children under 15 years followed by couple families without children.
- ▶ 51.3% of housing in Katherine is rented and 14.5% is fully owned.
- ▶ Rental accommodation in Katherine is extremely limited and very expensive.
- ▶ The number of properties sold has declined since 2006.
- ▶ There is limited availability of housing for purchase.
- ▶ Sale prices for houses and units have risen on average approximately 12% and 17% per annum respectively.
- ▶ The median price for three bedroom house is \$268,000. This is 60% lower than comparable Darwin prices and 16% lower than Alice Springs for June 2008.
- ▶ Vacancy rates for residential properties remain low consistent with the rental market across the Northern Territory.
- ▶ There is limited availability of other temporary accommodation in Katherine. Hotels, backpackers and other temporary accommodation is generally booked out during peak events and peak visitor seasons.
- ▶ There is limited current availability of land for purchase. There is some future land available in Katherine East but this land is yet to go through concept planning and release by the Department of Lands, Planning and Environment.

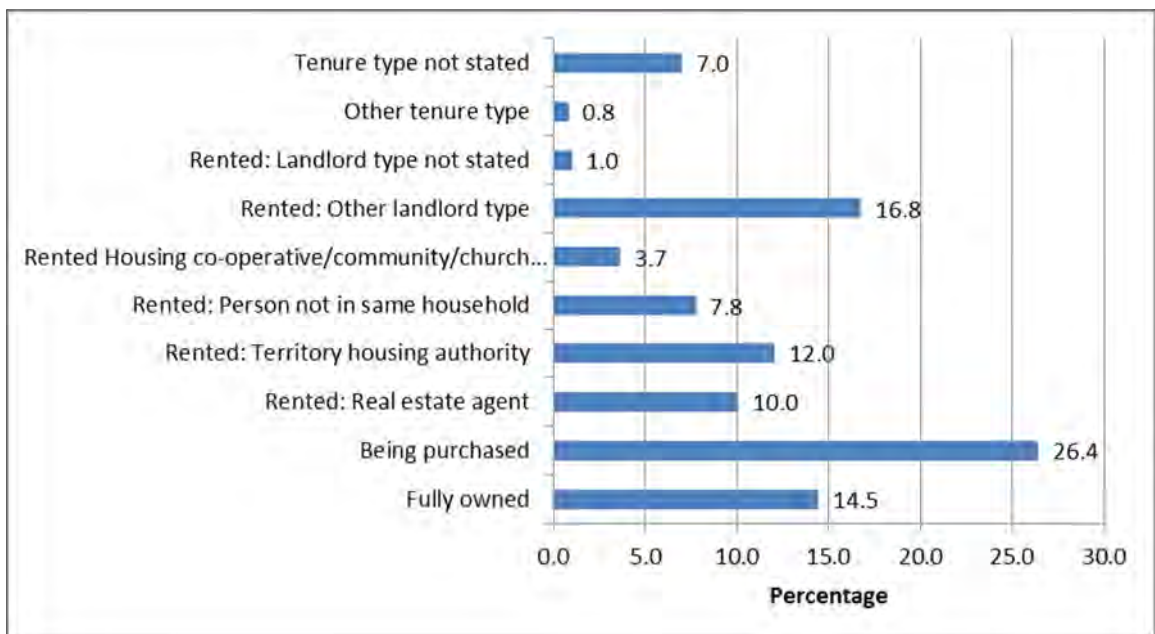
Household Types

The most common household type in Katherine is couple families with children under 15 years followed by couple families (Figure 17). 51.3% of houses in Katherine are rented, 14.5% are fully owned and 26.4% are being purchased (Figure 18).



Source: 2011 Census

Figure 17 Household Types, Katherine 2011



Source: 2011 Census

Figure 18 Housing Types, Katherine 2011



Consultation with Local Government confirmed that shortage of housing is an issue in Katherine. There is limited existing availability of housing for either purchase or rent. There is limited land currently available for purchase. Katherine Town Council referred to some land possibly available in the future in Katherine East but that this land had yet to undergo concept planning and was still at least a few years away for release⁷.

Housing costs

Table 19 details median property prices in Katherine based on 2006 to 2008 information. This information shows that vacancy rates have declined over this period and that costs for both purchasing a house and renting a house have risen.

Table 19 Katherine Median Property Prices (June Quarter)

	2006	2007	2008	Avg. Annual Change
Sales				
House (no)	180	110	133	-13.1
Unit (no)	48	25	20	- 29.2
Sale Price (median)				
House (\$'000)	216	267	268	12.0
Unit (\$'000)	156	215	211	17.6
Rent per week (median)				
3 Bedroom House (\$)	275	300	310	6.4
2 Bedroom House (%)	200	370	280	20.0
Vacancy rates				
3 Bedroom House (%)	5.2	1	1.8	n/a
2 Bedroom Unit (%)	3.8	1	2.1	n/a
Yield				
3 Bedroom House (5)	6.6	5.8	6.0	n/a
2 Bedroom House (%)	6.7	6.5	6.9	n/a

Source : ABS, 2010

Affordability

Affordability of housing is defined as the proportion of median weekly income required to meet weekly rent for a 3 bedroom house (NT Government, 2010). In general, members of the community which are over the 30% or 35% thresholds are considered to be under housing stress.

There is limited recent statistical data available for Katherine on housing affordability but based on the above criteria and using a conservative median rental cost for a three bedroom home in 2008 of \$310 (Table 19), families with a combined gross income of less than \$1,033 (i.e. housing costs accounting for greater than 30% of income) per week would potentially be subject to rental stress. This is likely to be the case for a significant proportion of Katherine residents (approximately 20.7%) and particularly the Indigenous population (42.5%), based upon 2011 income information (Section 4.3.6).

⁷ SIA baseline consultation September 2011



More recent secondary information confirms that rental accommodation in Katherine is limited and expensive – often around \$400-\$480 for a three-bedroom home (Talbot, 2011; DLGRS, 2011).

Temporary accommodation

Table 20 provides a list of other temporary accommodation available in Katherine. SIA consultation with key stakeholders and accommodation owners identified that this accommodation often becomes fully-booked during the peak tourist season and for key events such as the Katherine Show weekend.

Table 20 List of Temporary Accommodation in Katherine

Name	Type of Accommodation	Capacity
Aboriginal Hostels Limited	Backpackers	-
All Seasons Katherine	Motel / Caravan Park	100 rooms
Aussies Bistro	Hotel	-
Best Western Pine Tree Motel	Motel	51 rooms
BIG4 Katherine Low Level Caravan Park	Caravan Park	8 cabins
Coco's House	Backpackers	-
Edith Falls Kiosk	Caravan Park	-
Katherine Motel	Motel	40 rooms
Katherine River Lodge Motel	Motel	38 rooms
Knotts Crossing Resort	Motel / Caravan Park	126 rooms
Kookaburra Lodge	Backpackers	-
Manbulloo Homestead	Caravan Park	-
Mataranka Cabins and Camping	Motel / Caravan Park	4 cabins
Nitmiluk National Park	Caravan Park	-
North Bank Park	Caravan Park	-
Palm Court Kookaburra Backpackers	Backpackers	-
Paraway Motel	Motel	56 rooms
Redgum Tourist Park	Caravan Park	-
Riverview Tourist Village	Caravan Park	-
Shady Lane Tourist Park	Caravan Park	-
Springvale Homestead	Motel / Caravan Park	28 rooms
St Andrews Serviced Apartments	Hotel	14 apartments
Stuart Hotel	Hotel	19 rooms
Territory Manor	Motel / Caravan Park	26 rooms
Timber Creek Hotel and Circle F Caravan Park	Hotel / Caravan Park	-

Building approvals for the period 2005 to 2009 are provided in Table 21.



Table 21 Building Approvals, Year ended 30 June

Building Approvals		2005	2006	2007	2008	2009
Private sector houses	no.	14	18	19	24	19
Total dwelling units	no.	21	27	34	24	25
Value of private sector houses	\$m	2.6	3.1	3.7	6.5	3.6
Value of new residential building	\$m	4.1	6.6	8.6	6.5	4.8
Value of total residential building	\$m	8.1	8.3	11.8	12.9	11.7
Value of total non-residential building	\$m	2.1	2.5	2.8	10.3	4.3
Value of total building	\$m	10.3	10.8	14.7	23.2	16.0
Average value of private sector houses	\$'000	182.9	178.9	195.7	266.8	190.9

Source: ABS 2010

Future housing opportunities

SIA consultation with Katherine Town Council identified that there is currently some land available for development in East Katherine and future land that has been identified for future development. This land provides an opportunity for Vista Gold to develop future additional housing for the Project.

4.3.8 Health, Safety and Security

Key Points Health, Safety and Security

- ▀ Katherine has good base services and community infrastructure including a 60-bed hospital that services both regional and defence needs; an airport shared with the RAAF Base Tindal, several private and community medical clinics, five university campuses, training providers and a range of recreational and leisure facilities.
- ▀ The provision of healthcare in the Katherine Region is characterised by the significant gap between Indigenous and non-Indigenous people.
- ▀ Existing health care provision is challenged by the remoteness of Katherine and the extreme remoteness of smaller communities spread throughout the region. Indigenous employment levels are generally very low and Indigenous employment is limited almost entirely to Aboriginal Health Workers. It is difficult to recruit and retain health workers in all disciplines and difficult to maintain resident professionals in the remote communities.
- ▀ Access to specialist facilities is very limited and relies upon visiting clinicians or patient transport to Darwin.
- ▀ Gaps and issues have been identified in providing healthcare services in the Katherine Region. These include: inadequate availability of Aboriginal Health Workers, lack of resident doctors and specialists, no Indigenous doctors and few Indigenous nurses, challenges around provision of education and training in remote areas, lack of affordable and suitable housing and cultural mentoring and training issues.

Health Services in Katherine

The Katherine region (for healthcare purposes) includes Katherine, Roper Gulf and Victoria Daly Local Government areas covering approximately 340,000 square kilometres. Key health services in both Katherine Region and Katherine are identified in Figure 19 and Figure 20. The following discussion on health services was based on information obtained in 2011. The status of services is unlikely to have changed significantly since this time.



Source: Katherine Centre of Excellence Report (2011)

Figure 19 Katherine Regional Health Clinics



Source: Katherine Centre of Excellence Report (2011)

Figure 20 Katherine Health Clinics

Katherine District Hospital

The Katherine District Hospital is a 60-bed public hospital, one of just five in the NT. It services an area of approximately 340,000km² and a catchment population of approximately 19,000 plus a seasonal tourist population. Approximately 85% of the patients are Indigenous. Services include 24-hour Emergency, 14-bed Maternity Unit with 3 birthing rooms, 28 bed general medical/surgical ward, 18-bed children's ward, renal unit with 7 dialysis units, Radiology (X-ray and ultrasound only) and pathology.

There are approximately 87 nurses on the hospital staff. Turnover is not as high as might be imagined for the remote location. One reason is the existence of on-site accommodation (48 units) and on-site amenities including tennis courts and a swimming pool. Doctor services are provided by General Practitioners, Junior Medical Officers and International Medical Graduates with support services from Visiting Medical Officers. Obstetric and Anaesthesia services are provided by the GP's from the Kintore Clinic. There are currently 13 full time equivalent (FTE) doctors at the hospital. There are no resident specialists. There are visiting services from physicians, paediatricians, cardiologists, ophthalmologists and renal specialists, generally for a few days every month to six weeks. Visiting specialists come from larger centres including Darwin, Adelaide, Newcastle, Melbourne and Canberra. Katherine District Hospital is currently not accredited for Registrar training. As with most rural and remote hospitals, the biggest challenge facing the hospital is to maintain sufficient and adequately skilled staff.



Wurli Wurlinjang Health Service

The Wurli Wurlinjang Health Service serves the Indigenous community of Katherine and the immediate vicinity. The main Wurli Clinic is located on Third Street in central Katherine and has 6 consulting rooms, a procedure room and a pharmacy. It is staffed largely by Aboriginal Health Workers, one of whom is the Clinic Coordinator. There are 5 doctors who service the Wurli Clinic. Wurli runs a sexual health program which is shared with Sunrise and Katherine West. The Wurli Wurlinjang AMS also currently hosts Medical Students, Junior Doctors, GP Registrars and trainee Aboriginal Health Workers. It has the relative advantage of enabling trainees to be accommodated in central Katherine.

Katherine West Health Board

The Katherine West Health Board services an area of approximately 162,000 square kilometres to the west of Katherine. Katherine West owns and operates 7 Community Health Centres (Table 22).

Table 22 Summary of health facilities and services

Name of Facility	Type of Facility	Service/s
Active Physiotherapy Katherine	Private	Physiotherapy
Billings Family Life – Natural Family Planning	Private	Family Planning
Blue Sky Therapies	Private	Physiotherapy, alternative & natural therapy,
Chiropractic Health Centre of Katherine	Private	Chiropractic
Clinic 34	NT government	Sexual – assessment and treatment of STIs and blood borne viruses
Katherine Dental Surgery	Private	Dentistry
Katherine Diagnostic Imaging	Private	Diagnostic ultrasound service
Katherine District Hospital	NT government - Hospital	Non-specialist, medical, diagnostic and treatment facility.
Katherine Health Centre	NT government	Infant, maternal, nutrition, ear, oral, drug and alcohol, education and training, women, children, mental health
Kintore Clinic	Private	General Practice
Laubman & Pank	Private	Optometry
OPSM	Private	Optometry
Rocky Ridge Nursing Home	Private	Aged Care
Somerville Community Services	Non-government, not-for-profit	Disability, family
Wurli Wurlinjang	Community-run, indigenous health	Substance abuse, child, maternal, women, men, chronic disease, sexual, optometry, aged
Government Centre	NT government	Mental Health



Name of Facility	Type of Facility	Service/s
Sunrise Health Services Aboriginal Corporation	Community-run, indigenous health	Men's, child, aural, aged, nutrition, drug & alcohol, environment, emotional, chronic disease.
Team Health Top End Association for Mental Health		Mental Health

A mobile team also services around 15 outstations and cattle stations in the region. Katherine West has approximately 4 full-time GPs, 1 GP Registrar, 16 Nurses, 6 registered Aboriginal Health Workers and 2 trainees. Katherine West has chosen to integrate Allied Health into its own staff. There is currently 1 FTE Diabetes Educator plus locums in podiatry and speech therapy. There is a high turnover of nursing staff. Remoteness is the primary factor and suitable accommodation in the communities is an issue.

The recent trend is for nurses to choose to work with agencies rather than as direct employees. 90% of nurses are female. All communities are E-health Connected. Katherine West runs an anti-smoking program which is shared with Wurli and Sunrise. Katherine West has a history of training placements and some existing infrastructure.

Sunrise Health Service

Sunrise Health Service provides healthcare services to remote largely indigenous communities across an area of approximately 75,000 square kilometres to the east of Katherine. Services are based from nine health centres and there are around 3,500 regular patients of whom approximately 85% are Indigenous. The community clinics were mostly built in the 1960s and 1970s. They are generally busy and crowded. The communities are all accessible by road, but not all by paved roads and some communities (including the significant population at Ngukurr/Urapunga) often become inaccessible by road for parts of the wet season.

Medical evacuations are frequent with 2-3 evacuations per week from Ngukurr and 1-2 per fortnight from other sites. Dialysis machines are planned for Ngukurr and Barunga. Sunrise has 6 doctors (4.5 FTE). All the doctors live in the town of Katherine and travel out to serve the communities. Ngukurr, Minyeri and Bulman have visiting paediatricians, general physicians and hearing specialists. There are 20-25 nurses of whom 8-9 are long-term providers and the remainder experience high turnover. There are 16 Aboriginal Health Workers and Sunrise would prefer there to be more. Sunrise believes that community support is the key for increasing numbers of AHW's. There is 1 mental health professional. The vast majority of the Nurses and AHW's live in the communities with just one nurse living in Katherine. There are 6 AHW's based in Katherine to provide regional programs in chronic disease management, environmental health, aural health and aged care. Sunrise runs a trachoma program which is shared with Wurli and Katherine West.

Binjari Health Service

Binjari is an Indigenous community of approximately 300 people located 18km south of Katherine. The Binjari clinic is managed by a nurse and staffed by Aboriginal Health Workers. The Binjari Health Service is independently constituted and managed but its finance is auspiced by Wurli Wurlinjang Health Service.

Katherine General Practice Clinics

Until recently, there has been only one GP Clinic in the town of Katherine – the Kintore Clinic. The Kintore Clinic has recently had two full-time GP's and in the past has employed up to 5 GP's and GP registrars. The GP's at Kintore, Dr David Brummitt and Dr Jim Scattini also perform obstetric and



anaesthesia services at the hospital for which they are called in several times per week. Dr Brummitt and Dr Scattini have practiced in Katherine for 19 and over 30 years respectively. The clinic has no practice nurse and rents space to visiting specialists and Allied Health professionals. The Kintore Clinic takes in medical students for clinical training but finds the associated administration to be onerous. In October 2010, a second clinic "Gorge Health Services" was opened in Katherine with Dr PJ Spafford as the sole practitioner. Dr Spafford has practiced in Katherine for many years and was until recently the Director of Medical Services at Katherine District Hospital.

Katherine Regional Aboriginal Health & Related Services - KRAHRS

KRAHRS is a non-profit organisation based in Katherine which provides Allied Health services to Aboriginal communities. It is funded by the Department of Health and Ageing for three allied health positions. KRAHRS is not funded for in-town services.

RAAF Base Tindal

RAAF Base Tindal is located 15 kilometres south of Katherine on the site of a World War II airfield. The base is home to around 600-700 service personnel in addition to civilian staff and families. Medical Services at the Tindal RAAF base change over time with the relatively high turnover of personnel. There have been up to three doctors at RAAF Base Tindal in various stages of training. The majority of family members are believed to seek medical care from the town clinics and the Katherine District Hospital.

Katherine Region Aged & Disability Service

Services provided include assessment, therapy, case management, respite, supported accommodation and care, community access, information and training, equipment and subsidies and guardianship

Centre for Disease Control (CDC)

CDC operates from the hospital campus and provides a range of services to prevent, monitor and control selected communicable and non-communicable diseases.

Community Health Centre

Katherine Community Health Centre is located in the Government Centre on First Street.

Services provided include:

- ▶ Immunisation clinics;
- ▶ Maternal health services;
- ▶ Infant health services and clinics;
- ▶ School medical screening;
- ▶ Domiciliary nursing;
- ▶ NT hearing services;
- ▶ Oral hygiene (dental clinic); and
- ▶ Nutrition counselling.

Pharmacy

There is one Pharmacy business in the town of Katherine with two retail outlets employing 4 Pharmacists.



Northern Territory Aerial Medical Service (NTAMS)

Katherine is one of three bases for NTAMS in the Top End – the others being Darwin and Gove. The service conducts medical evacuations from remote communities and work sites, hospital transfers and international retrievals from parts of South East Asia. NTAMS has doctors on call in Darwin.

Mental Health Services

Katherine Mental Health Service has a Psychiatrist, a Psychologist, a Mental Health Nurse and an Aboriginal Health Worker. The service is located in the Government Centre on First Street and services the whole region. General Practice Network Northern Territory (GPNNT) also operates a mental health service for remote communities called “Healthy Minds”.

Alcohol and Drugs Program

This service offers a range of community education services including accredited training in Community Services Alcohol and other Drugs Work. The service also assists communities with development and implementation of capacity building and diversionary activity projects.

Dental Services

There is only one private dental practice in Katherine. The practice consists of the owner dentist who is sometimes supplemented by another dentist. There is a funded public dentist position and dental facilities at the Government Centre but the position is often unfilled.

Healthcare Education and Training

Whilst underserved from the perspective of healthcare services, the Katherine region is also generally under-utilised as a resource for clinical training. Reasons include the lack of accommodation, lack of clinical space for students at remote sites and the need to collaborate and coordinate with multiple education and training providers to make efficient use of central resources and infrastructure.

There two physiotherapy clinics, one natural therapy clinic and one chiropractic clinic. Katherine has one dentist and two optometries; and a specialist sexual health clinic (Clinic 34). Katherine has a diagnostic imaging clinic that performs sonograms and ultrasounds and a general practice. Katherine’s two main health facilities are Katherine District Hospital which is a non-specialist, general, 60-bed hospital. The other main health facility is Katherine Health Centre which specialises in infant, maternal, nutrition, ear, oral, drug and alcohol, education and training, women, children, mental health. A community-run, indigenous healthcare service is run out of the Katherine region.

Key Health Care Gaps

A number of gaps and issues have been identified (Talbot, 2011) in providing healthcare services to the Katherine Region. These include:

- ▶ Inadequate availability of Aboriginal Health Workers;
- ▶ Lack of resident doctors and specialists;
- ▶ No Indigenous doctors and few Indigenous nurses;
- ▶ Challenges around provision of education and training in remote areas;
- ▶ Lack of affordable and suitable housing ; and
- ▶ Cultural mentoring and training issues.

4.3.9 Other Social Infrastructure

Key Points Other Social Infrastructure

- Katherine has four state primary schools situated in town and one special school, servicing children with special learning needs. There are 13 primary schools in remote areas in the Katherine region with the head office located in Katherine. Katherine School of the Air is run from Katherine and services primary school students in remote areas in the Katherine region.
- There is good training and education infrastructure in Katherine supporting VET programs and further education.
- Childcare facilities in Katherine are currently considered to be at capacity.
- There are a range of restaurants, bars and cafes in Katherine providing opportunities for socialising.
- There is one supermarket in Katherine servicing the needs of a wider regional population.
- Katherine has good base sport and leisure opportunities and facilities as well as a range of existing social and sporting clubs.

The following section provides a summary of existing social infrastructure and services in Katherine in 2011. They are unlikely to have changed substantially since this time. Key community service delivery areas for Katherine include Booloola, Ngukurr, Barunga, Wugularr (Beswick), Bulman, Manyallaluk (Eva Valley), Numbulwar, Jikminggan and Matanka.

Schools

Katherine has four state primary schools and one school servicing children with special learning needs. Katherine Regional Group Schools consists of 13 primary schools in the Katherine region with the head office located in Katherine (Table 23). Katherine School of the Air is run from Katherine and services primary school students in remote areas in the Katherine region. Children who use this service live in very remote areas such as cattle stations. Katherine has one secondary education facility which is a state run school. Three tertiary education facilities have four campuses in the Katherine region.

Katherine has good social infrastructure supporting further education and training opportunities including VET training and a campus of the Charles Darwin University (Table 24).

Table 23 List of Schools in Katherine

School	Level of Education	Number of Students
Casuarina Street Primary School	Primary	280
Clyde Fenton Primary School	Preschool & Primary	285
Katherine High School	Secondary	585
Katherine Regional Group Schools		
Katherine School of the Air	Primary	214
Katherine South Primary School	Primary	319
Kintore Street School (Special)	Preschool & Primary	9
MacFarlane Primary School	Primary	231
St Joseph's College	College	-



School	Level of Education	Number of Students
Tindal Preschool	Preschool	-

Table 24 Training and Employment Services

Name	Type	Website	Contact Details
Australian Apprenticeships NT	Training	www.australianapprenticeshipnt.com.au	08 8971 2839
Byron Employment	Employment agency	www.gtnt.com.au	08 8971 1688
Batchelor Institute of Indigenous Tertiary Education, Katherine Annexe	Tertiary education	www.batchelor.edu.au	08 8966 2010
Centre for Remote Health	Tertiary education, training, research centre (remote health)	www.crh.org.au	08 8971 2758
Chamber of Commerce NT	Tertiary education (business)	www.chambernt.com.au	08 8972 3830
Charles Darwin University, Katherine Rural Campus	Tertiary education	www.cdu.edu.au	08 8973 8311
Charles Darwin University, Katherine Town Centre	Tertiary education	www.cdu.edu.au	08 8973 9900
CRS Australia	Employment agency	www.crsaustalia.gov.au	08 8973 0300
IS Australia	Employment agency, training	www.isaustralia.com.au	08 8971 0030
ITEC	Health workers employment agency	www.itechealth.com.au	08 8923 9923
Jobfind Centre Katherine	Employment agency	www.jobfindcentre.com.au	08 8972 9200
Katherine Training Centre	Training	www.deetnt.gov.au	08 8972 5300
Northern Territory Rural College	Tertiary education		08 8973 8311

SIA consultation identified that existing childcare facilities in the area were at capacity (Table 25).

Table 25 Childcare Centres

Name of Centre	Services Offered	Ages	Capacity	Availability
Katherine East Childcare & Early Learning Centre	Long day care, occasional care	6 weeks – 5 years	-	Vacancies
Katherine Regional Family Child Care Inc, Family Day Care & After School Care	Family day care, after school care	0 – 5 years	45 children per day	No vacancies



Name of Centre	Services Offered	Ages	Capacity	Availability
Little Joeys	Long day care, after school care	3 – 5 years	44 children per day	No permanent vacancies, come casual vacancies
Little Mangoes	Long day care	6 weeks – 5 years	86 children per day	No vacancies
YMCA Katherine	Vacation care	-	-	-

Public Transport

Katherine has two private taxi service operators who, together, operate 23 taxis in Katherine. Taxis include mini buses that hold up to 10 people as well as sedans. Consultation with the taxi service indicated that they were not running at capacity except during peak periods.

Katherine has a school bus and there are usually a number of buses that operate between Katherine and surrounding communities. SIA baseline consultation indicated that some of these services had been cancelled recently due to funding issues.

Leisure and Entertainment Amenities

Katherine has good base leisure and facilities provided and maintained by the Katherine Town Council. These include:

- ▶ Sportsgrounds;
- ▶ Four ovals;
- ▶ BMX track;
- ▶ Basketball court;
- ▶ Netball court;
- ▶ Tennis courts;
- ▶ Skate park;
- ▶ Children's adventure playground;
- ▶ Aquatic centre;
- ▶ Swimming pool;
- ▶ Library;
- ▶ Museum; and
- ▶ Four art and cultural organisations.

Parks and Reserves

- ▶ Twenty parks in the Katherine region;
- ▶ One Hot Springs Reserve.

Community events in the region include the:

- ▶ Sports Expo;
- ▶ National Youth Week;
- ▶ Katherine Festival;



- Doggy Day;
- Katherine & District Show Society Inc.;
- Katherine Community Markets; and
- Nixon X-ing Campdraft.

Restaurants, Cafes, Food Outlets, Bars

There are a range of existing restaurants, cafes and food outlets currently in Katherine (Table 26).

Table 26 List of Facilities for Socialising

Name	Venue Type	Facilities	Capacity	Opening Hours
All Seasons Katherine – Galloping Jacks Steakhouse & Bar	Hotel restaurant	Restaurant, swimming pool, conference room, bar	Seats 100 people	6:30 pm – 9 pm 7 days
Arcade Internet Cafe	Cafe	Cafe, internet use	-	8:30 am – 5 pm Mon – Fri 8:30 am – 1 pm Sat
Brumbys	Takeaway	Bakery	-	7 am – 7 pm Sun – Fri 7 am – 6 pm Sat
Bucking Bull	Cafe	Cafe	500 people (takeaway and seating)	6:30 am – 4:30 pm Mon – Fri
Barra Cafe	Cafe	Cafe	Seats 25 people	4 pm – 8 pm Dry season only
Eagle Boys	Takeaway	Fast food	-	
Happy Corner Store	Takeaway	Fast food	-	
Jade Cafe	Cafe	Cafe	-	9 am – 5 pm Mon – Fri 9 am – 3 pm Sat
Katherine Club	Restaurant	Restaurant, RSL sub-branch, bar	Seats 280 people	11:30 am – 2 pm Mon – Fri 6 pm – 8:30 pm Mon – Sat
Katherine Country Club	Restaurant	Restaurant, bar, pokies	Seats 300 people	10 am – late 7 days
Katie's Bistro	Restaurant	Restaurant	Seats 120 people	
Marksie's Museum Cafe	Cafe	Cafe	Seats 100 people	8 am – 4 pm Mon – Fri
McDonald's Katherine	Takeaway	Fast food Restaurant	-	4 am – 3:45 am 7 days
Mini Mart Cafe	Cafe	Cafe	-	8 am – 4 pm Mon – Fri 9:30 am – 2 pm Sat
New Shanghai	Restaurant /	Restaurant,	Seats 70 people	11 am – 1:30 pm Mon – Sat



Name	Venue Type	Facilities	Capacity	Opening Hours
Restaurant & Takeaway	Takeaway	takeaway		5 pm – 9 pm Mon - Sat
Ninos Pizza	Takeaway	Fast food restaurant	-	4 pm – 8:30 pm 7 days
Red Rooster	Takeaway	Fast food restaurant	-	9 am – 9 pm Mon – Wed 9 am – 10 pm Thurs – Sat 10 am – 10 pm Sun
River Restaurant	Restaurant	Restaurant, catering, function room	Seats 90 people	6 pm – 8:30 pm 7 days
RJ Bar & Restaurant	Restaurant	Restaurant, bar	Seats 40 people	6 pm – close Mon – Sat
Savannah Restaurant	Restaurant	Restaurant	Seats 115 people	
Silver Screen Cafe	Cafe	Café, catering	-	8 am – 4 pm Mon – Fri 8 am – 3 pm Sat
Subway Katherine	Takeaway	Fast food Restaurant,	-	8:30 am – 9 pm Sun – Wed 8:30 am – 10 pm Thurs – Sat
Terrace Cafe	Cafe	Cafe	-	7 am – 6 pm Mon – Fri 7:30 am – 3 pm Sat 8 am – 1 pm Sun
The Coffee Club	Restaurant / Cafe	Restaurant / Cafe	-	6:30 am – 5:30 pm Mon – Fri 7 am – 4 pm Sat 7:30 am – 4 pm Sun



Social Clubs

There are 12 Social clubs in Katherine, 10 are sporting clubs.

- ▶ Katherine Never Never Ladies Beefsteak & Burgundy;
- ▶ Rotary Club of Katherine;
- ▶ YMCA Katherine;
- ▶ Australian Football League NT;
- ▶ Hash House;
- ▶ Katherine Athletics Centre;
- ▶ Katherine Bowls Club;
- ▶ Katherine Game Fishing Club;
- ▶ Katherine Golf Club;
- ▶ Katherine Judo Club Inc.;
- ▶ Katherine Krocs Rugby Union Club; and
- ▶ Katherine Motor Sports Club.

4.4 Lower Top End/Katherine – Regional Study Area

There were a number of changes in the census collection areas in the 2011 census. The area referred to in the 2006 census as the Lower Top End Regional Area of the Northern Territory was re-named the Katherine SA3 level area (the boundaries have remained the same). To ensure there is a distinction between the Katherine Local Government Area data (also referred to as Katherine SA2 area) which has been referenced in Section 4.3 of this report, and the Katherine SA3 area which will be used for the analysis of the Regional Area, the report will refer to the SA3 Area as the Lower Top End Regional Study Area.

Key Points Lower Top End - Regional Study Area

- ▶ The Lower Top End Region includes the local government areas of Victoria Daly, Roper Gulf and Elsey.
- ▶ The Regional Study area includes Jawoyn Country which is the traditional land for the Jawoyn People.
- ▶ Key industries in the region include defence, mining, tourism, pastoral, horticultural, agricultural, construction and retail.
- ▶ Jawoyn Governance Structures have changed and evolved since the successful land claim was recognised under the *Aboriginal Land Rights Act* (Northern Territory) 1976 (ALRA). Existing structures of relevance to the Project include the Jawoyn Association, Northern Land Council, Jawoyn Business entities including Nitmuluk Tours and Jawoyn Land Management partnerships including the partnership with the NT Government through the Nitmuluk Board of Management.



- ▶ The population for the Lower Top End in 2011 was 17,823 persons. The annual growth rate for the region between 2006-2011 was 8.25% which was lower than for the Northern Territory (9.3%). This period of growth follows a period of decline where the population decreased by 1.5% between 2001 and 2011.
- ▶ The Region has a high percentage of non-resident people within the region including FIFO and seasonal workers estimated in 2011 to be approximately 3,556 persons or 20% of the resident population.
- ▶ The age-sex distribution of the population is very similar to that of the Northern Territory in having higher percentages of teenagers 15 to 19 years and a lower proportion in the age group 25 to 64.
- ▶ The Indigenous population in the Region was approximately 9,262 persons in 2011 representing 52.0% of the regional population.
- ▶ The educational profile for the region was lower than for Northern Territory with a lower proportion of adults having completed year 11 and/or 12 or equivalent and lower percentages of adults over 15 years with some type of post school qualification.
- ▶ Key industries for employment in the region were Public Administration and Safety, Agriculture, Forestry and Fisheries, and Construction.

The Lower Top End Region includes the local government areas of Victoria Daly, Roper Gulf and Elsey. This region includes the towns of Pine Creek, Mataranka, Larrimah, Timber Creek, Daly Waters and Borroloola as well as Indigenous communities including Ngukurr, Barunga, Bulman, Lajamanu, Kybrook and Kalkarindji.

Key industries in the region include defence, mining, tourism, pastoral, horticultural, agricultural, construction and retail.

4.4.1 Jawoyn Country

The regional study area also includes Jawoyn Country which is the traditional land for the Jawoyn people. The Jawoyn people are also the local Traditional Owners and custodians of the land for the Project site Figure 21. The following information has been taken from the Jawoyn Association website and describes their way of life and culture⁸.

⁸ Downloaded from the Jawoyn Association Website www.jawoyn.org



Figure 21 Jawoyn Country

Jawoyn People

Jawoyn is an all-encompassing expression used in reference to language, culture, people and territory. Jawoyn heritage and traditional ownership of country is passed down from a Jawoyn father and in some cases, through a Jawoyn mother. It is the affiliation of one or both parents to Jawoyn country, connectedness to and knowledge of ancestral lands that makes one Jawoyn. Prior to contact with European settlers there were 43 clans making up the Jawoyn tribe, however many of these clans are now extinct or subsumed into other clan groups. Today, there are 17 distinct clans making up the Jawoyn Nation and each of these clans lay claim to specific territory on Jawoyn country. There are about 600 adult Jawoyn people living today. The majority of Jawoyn live on or close to Jawoyn traditional lands, with the majority living close in or around Katherine the communities of Werenbun, Barunga, Wagularr (Beswick), Barunga, Mataranka (Pine Creek). Werenbun is the closest community to the Project Site. A number of Jawoyn also live in Darwin, Alice Springs and beyond (Bauman, 2007).

There is much movement as Jawoyn people maintain the complex and dense family kinship networks and the cultural priorities around land which were determined by the travels of ancestral beings in the *Burr* or Dreaming, and which give meaning to Jawoyn society. In and around Katherine Jawoyn are closely related through intermarriage with a number of neighbouring Aboriginal groups, including the Wardaman, Yangman, Dagoman, Manggarayi, Mayali and Ngalkbon (Dalabon). Although at least 33 Aboriginal languages have been identified by linguists throughout the Katherine region, most Jawoyn speak Kriol, Aboriginal English and/or English.



Jawoyn people history is recounted as follows⁹:

Dreaming

The history of our country began during the period we call Buwurr, sometimes written as Burr, often called the Dreaming or Dreamtime.

It was during this time the world was made and the rules for proper behaviour were laid down. During this period, beings in the form of humans, animals and plants brought the landscape to life by 'putting themselves' into the country.

They travelled the land above and below the ground, giving names to places and specifying special areas, along with dangerous sites to avoid. They gave the country its language and in doing so designated which people would belong to it.

In travelling on to neighbouring countries they established relationships across language group boundaries with some far away people.

We tell of these travels in stories and songs, some of which are public and others which are used in secret ceremonies.

The temporal use of the Buwurr or dreaming should not be interpreted as something only from the past. Buwurr is as significant today to our people as it always has been.

It encompasses all aspects of life. It is the past, the present and the future. "It is the land, its gorges, its plants and animals, its rocks and rivers, and the people all living creatures".

Bula - The Creator

Our land was first created by Bula, who came from the salt water country in the north. With his two wives, he hunted across the land and in doing so transformed the landscape through his actions.

In a number of places Bula finally went underground in an area north of Katherine known to us as the 'sickness country'. In a number of places, Bula left his image as paintings in rock shelters. It is called this because the area is very dangerous and should not be disturbed for fear that earthquakes and fire will destroy the world. We regard Bula as the most important figure in our dreaming.

Nagorrko – Spiritual Being from the North

Another important dreaming figure was Nagorrkko, a tall spiritual being from the salt water country in the north. Nagorrko divided our people into two main groups or moities – Yirritja and Dhuwa. Through this social grouping, he taught us much about proper behaviour and correct marriage relationships.

Nagorrko also gave us the law about mowurrwurr, or clan groups, and showed us what foods different mowurrwurr could or could not eat.

⁹ Downloaded from the Jawoyn Association Website www.jawoyn.org



Bolung – The Rainbow Serpent

Bolung, who is believed to inhabit the deep green pools on our land, is an important life giving figure but may also act as a destroyer. This can take the form of lightning and may bring monsoonal floods. Our people do not fish in the pools where Bolung sits. When fishing close to these pools, we can take only a small portion of the fish caught. We throw back the rest in order to appease Bolung. Drinking water must not be taken from these deep pools but rather from the shallow, associated waters.

Pregnant women and new initiates may not swim in the Katherine River for fear of disturbing Bolung. Unlike other Jawoyn Dreaming figures, which may be called upon for assistance in hunting and foraging, Bolung must not be spoken to and must be left undisturbed.

Kinship

Moiety

Moiety is a social division that is derived by the way indigenous people perceive the world around them.

During the Dreaming, ancestral beings assigned everything in the world - people, animals, plants, and places - to either the Dhuwa or Yirritja moiety.

Each moiety is associated with particular colour and proportions:

- Dhuwa colours are darker (red and black) and associated with shortness
- Yirritja colours are lighter (yellow and white) and associated with tallness

For example, the black cockatoo is Dhuwa, the white cockatoo is Yirritja, the short neck turtle is Yirritja, and the long neck turtle is Dhuwa.

People, like the birds and animals mentioned above, are born with moiety. One of the most important principles within Jawoyn society is that of joining Yirritja and Dhuwa moieties, to bring "balance" within the natural and cultural world.

To the outside world this is recognised primarily through the traditional marriage system. The basic rules are that a child's moiety will be the same as his/her father and opposite to his/her mother. Simply a Dhuwa person should marry a Yirritja person.

Anthropologists have documented the complexities of the marriage rules (see attached example for the Ngalkpon social system) where the rules for marriage are broken into sixteen social divisions (or "skin").

Skin

Skin is inherited from the mother and has a cycle which continues through several generations and provides comparable inherited links between mother and children for other skin groups.

Historically the two circles of skin relationships were joined through marriage and through a reciprocal relationship between "owners" and "custodians of cultural knowledge". Marriage partners were selected from two skin group categories from the opposite skin group circle only to minimise the possibility of incest within the mother's line.

In brief, this means that three-quarters of the opposite sex were prohibited as marriage partners. These rules were to regulate social interaction, cement kinship relationships, and ensure there was no marriage between biologically close relations.

Penalties for marriage "outside skin" were harsh and included death. Most people today still marry according to skin but if children are born from a "wrong" marriage involving two Yirritja or Dhuwa people, they take the skin group and consequently their moiety from their relationship to their mother.

Moiety



Source: <http://www.jawoyn.org/jawoyn-people/kinship> (downloaded 30-03-2011)

Owners ('gidjan') and Custodians ('junggayi')

Each skin group has a primary custodial "looking after" relationship with another skin group in the opposite skin group circle. 'Reciprocal rights and responsibilities relate to land and ceremony and generally Yirritja people will be workers in ceremonies owned by Dhuwa people and vice versa.

In general, a person's first-choice 'junggayi' is the brother or sister of their first-choice wife or husband, while the brother or sister of their second-choice wife or husband is the second-choice 'junggayi' and so on. The arrangement of choosing a 'junggayi' from an opposite moiety but within the same skin group ties families to each other and to ceremony.

Language

Jawoyn is the language of the Katherine area, and of country north and east of Katherine. Jawoyn belongs to a family that has been called 'Gunwinyguan', after one of the most widely spoken dialect clusters. It was not spoken in isolation from its sister languages, multilingualism was usual among speakers of the Arnhem Land languages.

Most people learned and used several languages throughout their lifetimes, and came to have something like equal fluency in most of them. It has been characteristic of older Jawoyn speakers up to the present that they spoke at least two Arnhem Land languages with equal or near fluency, and many spoke three or more. They understood a number of languages, at least partially, beyond those they spoke.

Most common in the repertoires of people of Katherine, Barunga and Beswick (Wugularr) area who spoke Jawoyn natively were Mayali and/or Ngalkbon, and in some instances Rembarrnga. Today, however, multilingualism is not the norm.

"Though people have varying degrees of understanding of Jawoyn and other languages, younger people are no longer using Jawoyn actively. It is endangered" (<http://www.jawoyn.org/jawoyn-people/language>



The most vital language of the Katherine and Barunga area is now Mayali, which is not indigenous to this area, but has a large reserve of active speakers extending into Arnhem Land. There are social and historical reasons for this decline. One is the long-term historical disruption of Aboriginal people in the Katherine region. There were early reductions of Aboriginal populations. Aboriginal people were pulled towards mining camps and other places of outsider settlement, where their routines came to revolve around working for outsiders and their patterns of living and movement were accommodated to settler regimes, with all the dislocations this entailed.

Jawoyn remains, however, the identity of a large number of people of the Katherine and Barunga area who see themselves affiliated to Jawoyn country. For these people, Jawoyn remains the language they consider theirs, to whatever degree of proficiency. A Jawoyn dictionary and thesaurus was produced by linguists Francesca Merlan and Pascale Jacq in 2005.

Governance

Jawoyn Governance structures have changed and evolved significantly since the Jawoyn land claim was recognised under the ALRA. The relationships and more formal partnerships that are involved in the management of Jawoyn Country are complex, multi-layered and have evolved for different purposes.

The key entities of relevance to the Project are as follows:

Jawoyn Association

The Jawoyn Association Aboriginal Corporation was established in 1985 as the representative body for the Jawoyn Aboriginal Traditional Owners. The vision for the Jawoyn Association is

“To achieve a growing sense of identify amongst the Jawoyn as a strong united people steadily working towards achieving sustainable improvements in economic, social, cultural, health, education and other indicators of overall quality of life.”

The Jawoyn Association work is dedicated towards relief of poverty, provision of general membership welfare support benefits, and expansion of Indigenous employment, advancement of education, training and learning and the continuation and preservation of traditional Aboriginal culture.

Ordinary and foundation membership of the Association is decided by a Council of Elders against eligibility criteria for membership which includes recognised genealogical affiliations with the Jawoyn, membership of a Jawoyn mowwurrwurr and maintenance of social connectedness. The tiers of governance within the association includes: a Board of Directors, Council of Elders and Executive/Staff. Members are elected to represent the geographical spread of communities on Jawoyn lands and the sizes of their populations.

Northern Land Council

There is currently politics between the Jawoyn Association and the Northern Land Council as in 2010 the Jawoyn joined four other Aboriginal tribal groups to develop a proposal to launch a Katherine Region Land Council. However, the Northern Land Council still has a critical role under the ALRA to consult traditional owners of Aboriginal regarding any projects that affect their interests prior to these projects proceeding. The NLC also represented Jawoyn Traditional Owners in the Jawoyn (Katherine Area) Land Claim and was instrumental in putting forward the ‘all Jawoyn one mob’ model of land ownership that was accepted by the Aboriginal land Commissioner and which subsequently fostered a discourse of Jawoyn nationhood.



Jawoyn Business

Nitmuluk Tours is owned by the Jawoyn Association as a commercial venture and undertakes a range of commercial operations in the park including offering visitors a range experiences such as boat tours, canoe hire, walks and helicopter tours. There is also a range of accommodation available ranging from camping and caravans through to fully-equipped cabins. Overall executive management of the business is undertaken by Nitmuluk Tours via its Board of Directors. This Board comprises a majority of Jawoyn members together with its financial advisors.

Jawoyn business ventures have also extended to partnership in the Mt Todd mining enterprise. In 1993 the Jawoyn signed the “Mt Todd Agreement” with the Federal and Northern Territory Governments previous mining company Zapopan NL. Under the agreement, the Jawoyn allowed the extinguishment of their native title rights to the mine area and the Werenbun-Barnjarm area in exchange for title to lands, undertakings on jobs and training and community infrastructure. When the mine opened in 1994, approximately 27% of the mine work force was made up by Aboriginal people. In 1996, Aboriginal employment at Mt Todd reached 32%.

Jawoyn Land Management

The Jawoyn jointly manage Nitmuluk National Park with the Northern Territory Government through the Nitmuluk Board of Management established under legislation. There are thirteen positions on the board; eight are nominated by the executive committee of the Jawoyn Association, three by Parks and Wildlife Commission NT (formerly NRETAS); one representative nominated by the Mayor of Katherine; and one by the Kakadu National Park Board. The Chair is selected from the Board’s Jawoyn members and appointed by the Minister.

4.4.2 Demography (Population, Age, Gender, Family)

Population

The Lower Top End Region is an area that covers 326,326km² and according to the 2011 Census has a population of 17,823. Table 27 presents the statistical trends of population in the area from data collected from 2001, 2006 and 2011 census.

Table 27 Resident Population (2001, 2006, 2011)

Location	2001	2006	2011	2001-2011		2006-2011	
	no.	no.	no.	%	no.	%	no.
Katherine/Lower Top End	18,743	16,464	17,823	-4.9%	-920	8.25	1,359
Northern Territory	197,768	210,627	226,207	4.5	9,216	9.87	19,047

Source: 2011 Census

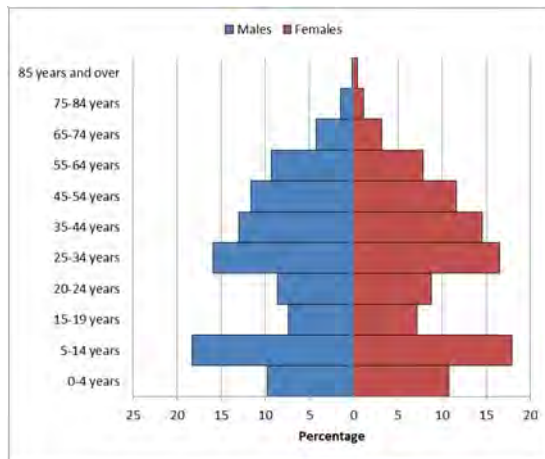
The population of the Lower Top End Region experienced a significant decline between 2011 and 2006 despite overall growth in the Northern Territory. In recent years the population has increased to almost the 2011 level. The Northern Territory overall has seen significant growth throughout the past decade with this accelerating between 2006 and 2011.

Residents versus Visitors

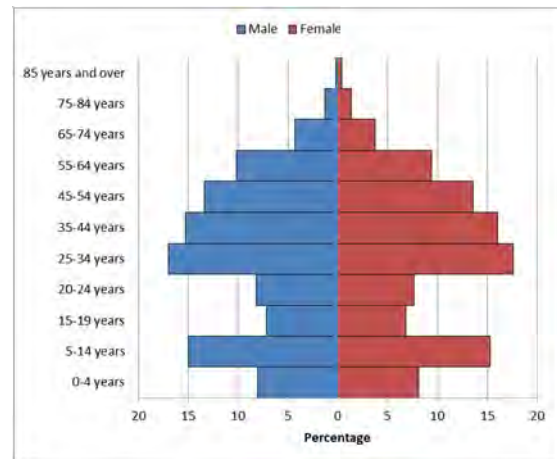
According to the 2011 Census the resident population for the Lower Top End Region (also referred to as the Katherine Statistical Region) was 17,823 persons and 21,379 (including visitors to the Region such as seasonal workers and Fly-in-Fly-out workers) (ABS, 2011). Place of usual residence data excludes visitors and people working in the region on a Fly-in-Fly-out arrangement. This is a difference of around 3,556 persons or around 20% of the resident population. This reflects the high visitation to the region as well as the growing FIFO workforce including those based at RAAF Base Tindal.

Age Gender Composition

The age and gender composition for the Lower Top End is very similar to that of the Northern Territory (as depicted in Figure 22). There is a slightly higher population of teenagers between the ages of 15 to 19 years and a slightly lower population between the age group of 25 – 64 years. It is anticipated that the FIFO population would compensate for the difference in the working population.



Lower Top End/Katherine Region



Northern Territory

Source 2011 Census

Figure 22 Age-Gender Composition Lower Top End 2011

Indigenous Population

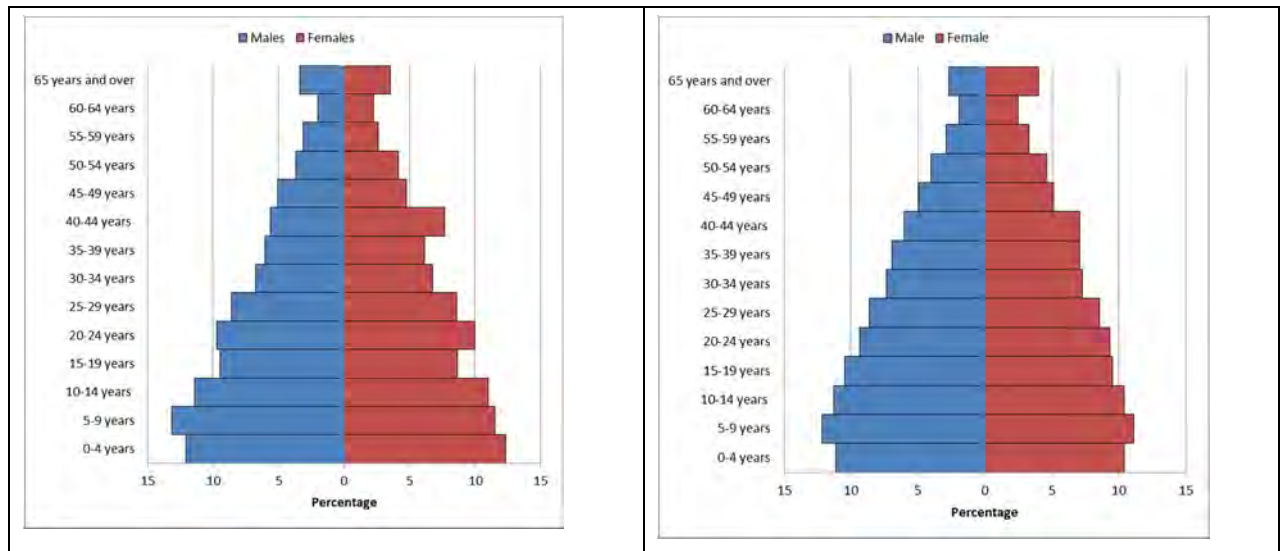
The Indigenous population in 2011 constituted 52% of the population of people in the Lower Top End NT region (Table 28). This is significantly higher than the proportion for the Northern Territory at 26.7%.

Table 28 Indigenous Population Katherine LGA 2011 Census

Indigenous/Non-Indigenous	Male	Female	Total	Percentage
Indigenous	4,467	4,795	9,262	52.0
Non-Indigenous	3,948	3,611	7,559	42.4
Indigenous status not stated	547	456	1,003	5.6
Total	8,962	8,862	17,824	100

Source: 2011 Census

Figure 23 shows the differences in life expectancy and mortality between the Indigenous population within the Lower Top End and the Northern Territory.



Lower Top End/Katherine Region

Northern Territory

Source: 2011 Census

Figure 23 Indigenous Population Age-Gender Distribution, Lower Top End NT 2011

4.4.3 Labour Market (Education, Training and Employment)

The labour market can be described in terms of supply and demand factors. The following characteristics of supply are provided:

- ▶ Education;
- ▶ Vocational education and training;
- ▶ Apprenticeships and traineeships; and
- ▶ Jobseekers.



Education

Table 29 Highest Level of School Attended

Level of school attended	Lower Top End	Lower Top End percentage	Northern Territory	Northern Territory Percentage
Year 12 or equivalent	3,501	28.3	62,499	39.9
Year 11 or equivalent	1,388	11.2	18,447	11.8
Year 10 or equivalent	2,794	22.6	29,879	19.1
Year 9 or equivalent	1,205	9.8	9,340	6.0
Year 8 or below	1,485	12.0	11,996	7.7
Did not go to school	352	2.8	2,390	1.5
Highest year of school not stated	1,632	13.2	21,953	14.0
Total	12,357	100	156,504	100

Source: 2011 Census

Table 30 Level of Post-school Qualifications: Percentage of Total Population Aged 15 Years and Over

Qualification	Lower Top End NT No.	Lower Top End percentage	Northern Territory No.	NT Percentage
Total population over the age of 15	12,763	-	162,801	-
Postgraduate Degree	142	1.1	4,308	2.0
Graduate Diploma and Graduate Certificate	145	1.1	2,920	1.5
Bachelor Degree	876	6.9	16,959	8.9
Advanced Diploma and Diploma	645	5.1	10,656	5.8
Certificate	2339	18.3	30,750	17.2
Inadequately Described/Not Stated	107	0.8	1,614	17.1
Total with qualifications	2055	16.1	67,207	52.6

NB: Excludes schooling up to Year 12. Excludes persons with a qualification out of the scope of the Australian Standard Classification of Education (ASCED). Includes 'Certificate III & IV, nfd'. (d) Includes 'Certificate I & II, nfd'

Source: 2011 Census



Table 31 Type of Educational Institution Attending – Lower Top End

Education Institution	No. of Persons	Percentage
Pre-school	339	5.5
Infants/Primary	2,065	33.7
Secondary	921	15.0
Technical or Further Educational Institution	220	3.6
University or other Tertiary Institutions	303	4.9
Other type of educational institution	183	3.0
Type of educational institution not stated	2,102	34.3
Total	6,133	100.0

Source: 2011 Census

Table 32 Non-school Field of Study 15 Years and over Lower Top End

Non-school Qualification: Field of Study	Male	Female	Total	Percentage
Engineering & Related Technologies	837	40	877	13.9
Management & Commerce	207	430	637	10.1
Education	131	407	538	8.5
Society & Culture	172	336	508	8.1
Health	103	395	498	7.9
Agriculture, Environmental & Related Studies	210	114	324	5.1
Architecture & Building	275	6	281	4.5
Food, Hospitality & Personal Services	109	134	243	3.9
Creative Arts	49	42	91	1.4
Field of study inadequately described	56	17	73	1.2
Natural & Physical Sciences	29	38	67	1.1
Information Technology	36	23	59	0.9
Mixed Field Programmes	13	9	22	0.3
Field of study not stated	1,108	984	2,092	33.2
Subtotal	3,335	2,975	6,310	100.0

Source: 2011 Census

Labour Demand

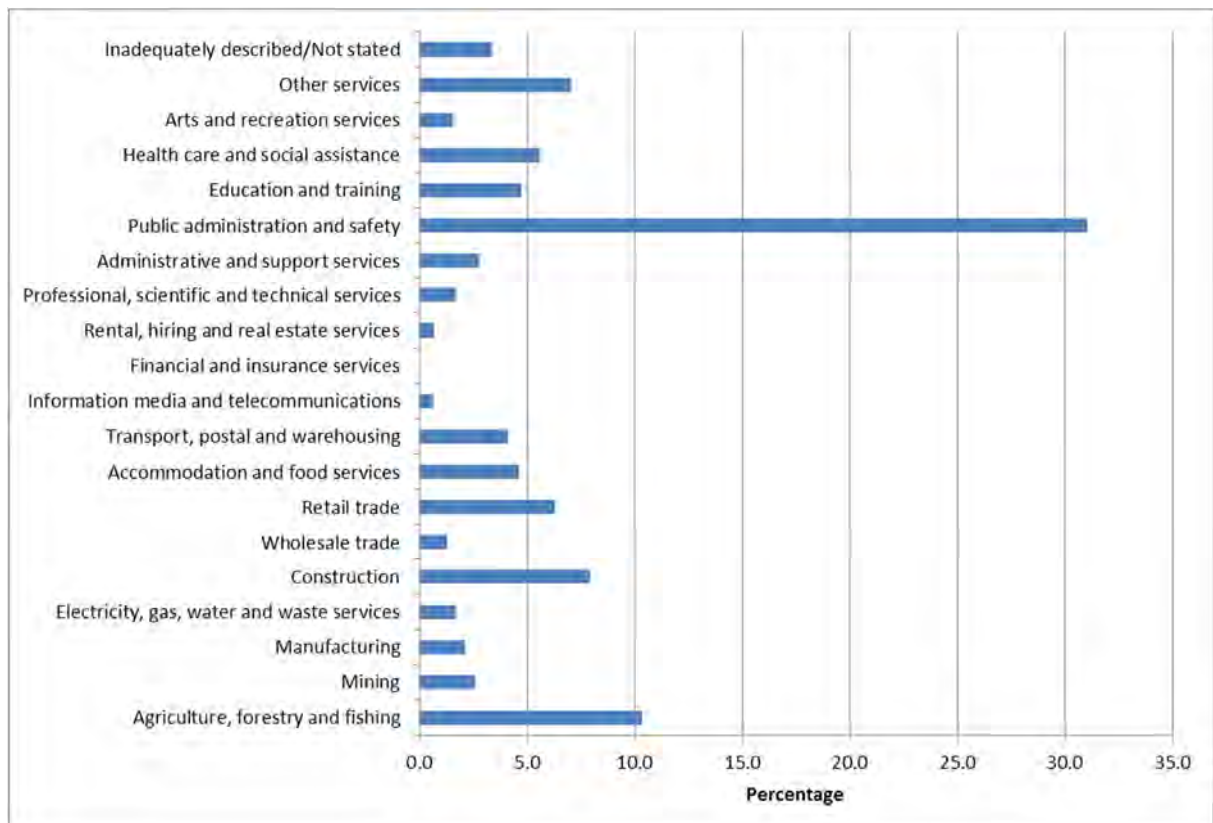
Labour markets function through the interaction of workers and employees. Regional labour markets in the NT are small and concentrated in certain sectors. Employers in mining, infrastructure and other projects are often unable to find sufficient numbers of local workers with the required skills in the region and there is often a long lead time in training new workers. Labour demand in the Lower Top End NT has been profiled in terms of the following indicators:

- ▶ Skill profile; and
- ▶ Job advertisements.

The Lower Top End NT occupation and industry profiles show the types of skills that were in the region's workforce at the time of the 2011 census.

Industry by Employment for Lower Top End NT

Employment by industry data shows the industry sections where people are employed and where employment opportunities lie within the region (Figure 24). The data is influenced by factors such as rate of economic growth, structural change in the economy, the effects of technology, labour market flexibility and changes in local and global demand.



NB: Based on place of usual residence, population aged 15 and over, total figures include CDEP Figures, Defence is part of the Public Administration and Safety, other services includes repairs and maintenance, personal services and private households.

Source: ABS (2007)

Figure 24 Industry by Employment, Lower Top End 2011



5. Social Impact Assessment

This section identifies the potential social impacts and opportunities for both the construction and operational phases of the Project. The identification and assessment of impacts has been developed with consideration of the potential positive, negative, direct and indirect and cumulative impacts. Impacts are also described in terms of their scale (local, regional, territory-wide) and significance.

The overarching approach to identifying social impacts and opportunities is described in Section 2.3. The key impact assessment steps were as follows.

5.1 Impact Assessment Steps

The key steps were:

1. Identify the local, regional and wider study area for the social impact assessment (Section 1.9)
2. Identify the Project activities that may have an effect on Project stakeholders (Table 33)
3. Identify the social change processes that are expected to occur as a result of the Project (Section 5.2)
4. Undertake social research to identify the potential social impacts and opportunities that may occur (Section 5.4)
5. Undertake community and stakeholder consultation to verify social impacts and opportunities
6. Assess the significance of potential impacts and opportunities using the social impact significance assessment methodology described in section 2.3 and Appendix A
7. Identify impact avoidance, mitigation and management strategies (Section 7)
8. Assess the residual social impact.

5.2 Social Changes and Social Impacts

The Project will cause a number of social change processes to occur within the Study Area. These social changes occur where Project activities interact with aspects of the social environment and lead to a range of both positive and negative social impacts and opportunities. Impacts may be perceived as either positive or negative by stakeholders depending on their own capacity to capitalise or respond to the social change.

At a broad level, the Project will initiate a number of social change processes that include:

- Demographic processes (changes in the number and composition of people)
- Economic processes (changes in the way in which people make a living)
- Geographical processes (changes in land use)
- Institutional and legal processes (relating to the efficiency and effectiveness of institutional structures)
- Socio-cultural processes (affecting the culture and way of life of communities).



Table 33 identifies the social environment aspect, Project activities that interact with this aspect and expected social change processes.

Table 33 Social Aspects, Project Activities and Social Changes

Social Environment Aspect	Project Activities	Social Change Processes
Workforce	Requirement for a FIFO or DIDO construction workforce of up to 450 persons (peak) during the construction period (approx. 2 years). Requirement for an operational workforce of up to 350 full-time positions comprising a mix of FIFO or DIDO contract workers and a permanent residential workforce. Requirement for additional community infrastructure and services to support workforce.	Population and demographic change Economic change Geographic change Socio-cultural change
Housing and accommodation	Construction camp to be located within 25km of mine. Additional housing and accommodation in Katherine to support operational workforce requirement.	Population and demographic change Economic change Geographic change Socio-cultural change Institutional and legal change
Economic and employment	Capital expenditure of approximately \$1.5 billion will occur during the construction phase, and will increase and peak at \$330 million annual spend during the operations phase, when the mine is in full production. Requirement for additional goods and services for the Project.	Population and demographic change Economic change
Community Infrastructure and services	Additional requirement for community infrastructure (utilities and services) and services (health, entertainment, food etc.) to support operational workforce. Requirement for after hours and emergency care for construction workforce. Requirement for access to health services for operational residential workforce.	Socio-cultural change Institutional and legal change
Community health and safety	Requirement for Project (resource extraction) and environmental management. Requirement for workforce and accommodation. Requirement for infrastructure.	Socio-cultural change Institutional and legal change



Social Environment Aspect	Project Activities	Social Change Processes
	Transportation and supply of goods and services.	
Indigenous, resources, values and aspirations	Partnership with the Jawoyn People in the Project. Workforce requirement.	Economic change Geographic change Socio-cultural change Institutional and legal change
Traffic and transport	Traffic generation associated with both construction, operation and closure. Worker transport to and from Project Site.	Economic change Socio-cultural change Institutional and legal change
Post- mining	Closure of mine. Rehabilitation of Project site.	Population and demographic change Economic change Geographic change Socio-cultural change Institutional and legal change

5.3 Summary of Key Issues Identified During Stakeholder Consultation

Key social issues identified during stakeholder consultations are summarised in Table 34. The Public Consultation Report provides further detail on these (GHD 2013).

Table 34 Major Issues Identified During Public Consultation

Major Themes and Issues	COMMUNITY CONSULTATION			GOVERNMENT BRIEFINGS AND MEETINGS		
	Katherine Community Information Sessions	Pine Creek Community Information Sessions	Key Stakeholders	Local Government	NT Government	Community Views Survey
Workforce						
Concerns that Project will exacerbate existing skills shortfalls	✓	✓	✓	✓		
Potential for anti-social behaviours of workforce	✓		✓	✓	✓	
Difficulties stemming from typical mining rosters	✓	✓	✓	✓	✓	✓
Concerns regarding behaviour and integration of workforce	✓	✓	✓	✓	✓	✓
Concerns that local businesses will lose staff to Project	✓	✓	✓			✓



	COMMUNITY CONSULTATION			GOVERNMENT BRIEFINGS AND MEETINGS		
Major Themes and Issues	Katherine Community Information Sessions	Pine Creek Community Information Sessions	Key Stakeholders	Local Government	NT Government	Community Views Survey
Health and well-being of workers				✓		✓
Lack of accommodation and housing	✓	✓	✓	✓	✓	✓
Need for additional housing to be built to accommodate workforce	✓	✓	✓	✓	✓	✓
Lack of land in Pine Creek		✓				
Preference for workers camp to be on or near Project Site	✓	✓	✓	✓	✓	✓
Concerns regarding Project driving up land and house prices	✓	✓	✓			✓
Opportunities for local business development	✓	✓	✓	✓	✓	✓
Concerns regarding the 'reliability' of the Project	✓	✓	✓	✓	✓	✓
Preference for Vista Gold to work with existing business in supply to the mine	✓	✓	✓	✓	✓	✓
Positive employment opportunities for local people	✓	✓	✓	✓	✓	✓
Concerns regarding regional/national labour skill shortages	✓	✓	✓			
Desire for more families to work at the mine	✓	✓	✓	✓	✓	✓
Training/ apprenticeship opportunities for local people, particularly youth (community capacity building)	✓	✓	✓	✓	✓	✓
Impact of mining rosters on community and family life	✓	✓	✓	✓	✓	
Use local training and traineeship programs and providers			✓	✓		✓
Concerns that existing health care services are stretched	✓		✓	✓	✓	
Would like to see Project investing in local community	✓	✓	✓	✓	✓	✓
Exacerbation of existing shortfalls (retail, entertainment, doctors etc.)	✓	✓	✓	✓	✓	
Community Health, Safety and Well-being						
Establishing trust in the community is important	✓	✓	✓	✓	✓	
Alcohol issues are a big concern			✓	✓	✓	
Need for mine workers to integrate into the community	✓	✓	✓	✓	✓	✓
Concerns regarding environmental management of tailings dump and heap leach pad			✓	✓	✓	✓
Need for environmental monitoring and reporting of monitoring to community			✓	✓	✓	
Indigenous aspirations, values and resources						



	COMMUNITY CONSULTATION			GOVERNMENT BRIEFINGS AND MEETINGS		
Major Themes and Issues	Katherine Community Information Sessions	Pine Creek Community Information Sessions	Key Stakeholders	Local Government	NT Government	Community Views Survey
Provision for Indigenous Employment Opportunities	✓	✓	✓	✓	✓	✓
Need for cultural awareness training on Project workforce	✓		✓			
Use of Indigenous mentors		✓	✓			
Traffic and Transport						
Condition of the Stuart Highway		✓	✓	✓	✓	
Increase in traffic on Edith falls road		✓	✓	✓	✓	
Transport of dangerous goods between Project and Darwin			✓		✓	
Environmental risks from transport such as spills etc.	✓	✓	✓	✓	✓	
Post-mining						
Loss of employment and economic stimulus			✓			✓

5.4 Social Impacts Construction and Operations Phase

5.4.1 Workforce (Requirement, Availability, Sourcing, Shift Management, Cumulative)

Construction Phase

Up to 450 persons will be needed during the peak construction period. Due to the short-term nature of the construction period (2 years) and current mining industry practice, the workforce is likely to be predominantly male and between the ages of 15-45 years. A purpose-built construction camp will be built close to the Project Site. This will avoid or minimise many of the negative impacts typically associated with male-dominated workforces. Workers are still likely to utilise facilities and services in the Katherine/Pine Creek area but this will be on a limited basis i.e. when workers are off-roster or in the event of an accident or emergency.

Operational Phase

An operational workforce of approximately 350 full-time workers will be required for the Project. This is likely to include approximately 60 people sourced locally and the remainder sourced from outside the Katherine Region. The life of mine operations is estimated to be 13 years.



Vista Gold's preference is for this workforce to reside locally as part of the local community rather than operating on a FIFO/DIDO basis. However, it is recognised that achieving this outcome, whilst desirable from a community and Stakeholder perspective, is challenging due to:

- ▶ The remote nature of Katherine and Pine Creek
- ▶ Current shortfalls within the Australian and Northern Territory mining industry for skilled and semi-skilled workers
- ▶ The current industry preference for using FIFO workforce
- ▶ A lack of housing and land of an appropriate size and standard available within the current Katherine/Pine Creek real-estate market.

Vista Gold recognises that achieving a residential workforce is also dependent on being able to attract workers and their families to come and live in the local area. This is dependent on the availability of sufficient housing, community services (health, education, retail, entertainment) and infrastructure to support a residential workforce. A separate study commissioned by Vista Gold investigated a number of options for accommodation of the operational workforce and recommended a 'hybrid' option comprising the following:

- ▶ 70 workers at the construction camp. This would accommodate mainly FIFO / DIDO personnel and provide an ability to quickly increase capacity and house overflow peak period personnel to meet mining needs or maintenance shut downs;
- ▶ A combination of both new and existing housing to support approximately 120 workers (family household with or without children). Workers would be accommodated in a mixture of:
 - New three and four bedroom houses located on existing vacant Katherine and region land
 - Existing (renovated if required) houses located in the Katherine and region
 - Subject to real estate availability at the time of arrangement, a small contained development on Katherine land
- ▶ 100 workers located in a Katherine based single person accommodation facility.

On this basis, the following social impact risks and opportunities have been identified:

Potential Impact	Explanation	Description of Impact
Lack of social integration of workforce	Social issues and concerns associated with integration of the Project Workforce into the community. The community of Katherine and Pine Creek currently comprise a mix of different socio-economic groups. Existing levels of social cohesion are mixed. For many residents, this is part of the 'multi-cultural' appeal of the area that contributes to its attractiveness as a place to live. In this social context, the focus for the Project is on not exacerbating existing social integration issues. Some concerns by Stakeholders have been raised regarding the integration of the Project's Workforce	Stakeholders: Residents, Workforce, Police, Council Perceived¹⁰ status of impact: Negative Scale: Local/Regional

¹⁰ Impact described from perspective of Stakeholders identified



Potential Impact	Explanation	Description of Impact
	into the community. The accommodation strategy proposed by Vista Gold has been designed to address these concerns. Management and Mitigation: Housing of the temporary construction workforce in a construction camp located outside of existing communities will reduce the risk of significant social impacts occurring. The 'hybrid' accommodation option proposed for the operational workforce provides for a large proportion of the operational workforce to include families. Specific management and mitigation strategies to address this impact will also include: a Workforce Management Strategy governing standards of behaviour and containing appropriate controls and a Community and Stakeholder Engagement Strategy to provide a mechanism for ongoing feedback from the community during both construction and operation stages. Vista Gold will also encourage its workforce to be a part of the local community and will implement a community Sponsorship Program to contribute to local community development.	
Increased incidence of anti-social behaviour arising from Project Workforce	Intermittent incidence of anti-social behaviour of Project Workforce whilst off-roster and visiting nearby Towns and communities (Katherine, Pine Creek etc.). This social impact is identified as a concern in relation to the non-resident single-male component of the workforce (during both construction and operation phases). Management and Mitigation: The housing and accommodation strategy adopted by Vista Gold has been designed to minimise the risk of this social impact. Other specific management and mitigation strategies that will be implemented include: a Workforce Management Strategy (including behaviour policies and codes of conduct linked to employee contracts, random alcohol and other drug-testing to discourage heavy drinking or other anti-social behaviours); design of the construction accommodation to include on-site recreational facilities; and an ongoing community and stakeholder feedback mechanism.	Stakeholders: Local residents, Health providers, Police Perceived status of impact: Negative Scale: Local/Regional
Exacerbation of existing labour and skills	The Project will have an increased requirement for mine workforce leading to potential exacerbation of existing skills shortfalls locally and regionally.	Stakeholders: Employers Perceived status of



Potential Impact	Explanation	Description of Impact
shortfalls	This impact is not specific to this Project but is a reflection of the increase in mining activity generally across Australia. Where demand exceeds availability, this can lead to difficulties recruiting workers, and to inflationary effects on wages. Mining is the highest paid sector in Australia (www.clarius.com.au) and mining jobs tend to have higher wages compared to non-mining jobs, this can lead to movement of workers into the mining sector to the detriment of non-mining business (refer also to Cross-over employment impacts). There are a range of existing mining skills shortfalls identified for the Northern Territory by the NT Government. These include construction project managers and engineering managers as well as technicians and trades workers in various occupations. Offsetting this however, the supply of skills to the Katherine region has increased since 2002 through education and training. Opportunities exist for partnering with education and training providers to increase local and regional employment. Timing of the construction period is likely to overlap with construction of the INPEX Project which will require between 2000-3000 construction workers. However, this is not considered to be a significant issue for potential construction contractors as consultation has indicated that they will bring their workforce in from outside the Northern Territory for the duration of the two-year construction period. The contribution of this Project to existing workforce shortfalls is not considered to be significant. Refer also to cross-over employment impacts. Management and Mitigation: In relation to the operation workforce, a flexible 'hybrid' option is proposed by Vista Gold that offers workers a choice with regard to potential FIFO or residential options. This flexible workforce option has been designed to both facilitate the achievement of desired social outcomes for Katherine (such as bringing more families to the area) as well as providing some flexibility for the Project to respond to the existing market. No specific mitigation and management proposed. Refer to overall management and mitigation strategies.	impact: Negative and Positive Scale: Local/Regional
Cross-over employment impacts	The Project workforce requirement may lead to some employees shifting employment and resulting in impacts on local and regional employers.	Stakeholders: Local and Regional employers

Potential Impact	Explanation	Description of Impact
	This issue has been raised as a concern by stakeholders during consultations. There is potential for this impact to occur, particularly in relation to the previous workers at the Mt Todd Mine who have had to travel further afield to find work when the mine previously closed. It is likely that many of these workers may wish to return to work at the Mt Todd Mine. Some stakeholders viewed this impact as negative as it contributed to difficulties experienced by employers in attracting and maintaining local staff. Other stakeholders identified this as a positive opportunity, as it resulted in lesser-skilled positions becoming more readily available locally, and opened up employment opportunities in other areas. This issue is not considered to be a significant risk during the construction phase of the Project due to the temporary nature of the construction work and the likelihood that the contractor will bring their own workforce. An aspect of Australian society is that employees are able to exercise individual choice with regard to their workplace. It would not be appropriate for Vista Gold to implement any recruitment policies that would negatively affect this. With regard to Project operation there may be some cross-over impacts in the early phases of Project operation. However, this will stabilise over time and will also provide opportunity for new workers to move into the Katherine Region to take up vacated positions. A key component of this impact, raised by businesses during consultation, was for appropriate notice to be given to employers enabling employers more time to find replacements. Management and Mitigation: Vista Gold will adopt recruitment policies that allow for appropriate notice periods to be served for new employees.	Perceived status of impact: Negative Scale: Local/Regional
Decline in worker well-being associated with a FIFO or DIDO workforce	Vista Gold has a preference for a residential operational workforce. This issue relates to the decline in overall worker well-being as a result of the nature of FIFO work. Impacts of FIFO/DIDO rosters have been analysed in several recent studies. Research by Petkova <i>et al.</i> (2009) identified the following negative impacts: Increased likelihood of a traffic accident associated with travel times (for DIDO workers), fatigue and speeding	Stakeholders: FIFO/DIDO workers Perceived status of impact: Negative Scale: Local/Regional

Potential Impact	Explanation	Description of Impact
	- Wellbeing impacts such as obesity, depression and alcohol and substance abuse - Reduced participation in day to day family life, family rhythms and family events, loss of contact or affinity with family, and reduction of associated emotional support. Reduced ability to participate in community activities either at home or in the host community due to changing rosters - Financial difficulties particularly associated with over-commitment and indebtedness. There is potential for the workforce accommodation camps to have either positive or negative impacts on worker well-being. Negative impacts that have been linked to workers camps include increased instance of drug and alcohol abuse, drugs, mental-health issues, loneliness and disconnection from family. Management and Mitigation: Vista Gold is currently considering options for a well-designed construction camp that includes individual rooms for workers, en-suite accommodation, air conditioning, built-in robe, television and table in each room. Rooms will be serviced on a weekly basis and full catering will be provided. Other services include a gymnasium, dining hall and landscaped recreational areas. The final design of the construction camp will be determined by the construction contractor. Other specific management and mitigation strategies include the: accommodation camp code of conduct and behavioural policies; fatigue management strategies, counselling service and overall Workforce Management Strategy.	
Increase in worker lifestyle opportunities associated with FIFO workforce	Positive benefits to workers and their families from increased opportunities associated with FIFO/DIDO work. Research by Petkova <i>et al.</i> (2009) identified the following positive opportunities for FIFO/DIDO workers. These include: - Financial benefits - Lifestyle (longer breaks away from work) - Longer continuous periods of family interaction. Management and Mitigation: No further specific mitigation and management proposed. Refer to overall management and mitigation strategies.	Stakeholders: Construction workers Perceived status of impact: Positive Scale: Local/Regional



Potential Impact	Explanation	Description of Impact
Fatigue and increased risk of accidents - related issues associated with worker travel between place of work and home	Increase in worker fatigue from travel to, and from, place of work. This social impact has mainly been identified as a concern with regard to the operational workforce the majority of whom will likely reside in Katherine. For this component of the workforce this will likely involve 40 mins to one hour travel each way to the Project site. This may lead to fatigue-related impacts for employees who would generally work 12 hour shifts. The quality of the Stuart highway has been identified as a concern through public consultation and may also affect this issue. Management and Mitigation: As part of the Workforce Management Strategy, Vista Gold will adopt industry-appropriate workplace health and safety policies which will include driver safety requirements for employees who need to travel between their home and their place of work. Vista Gold will also investigate options for bus transportation for employees travelling in from Katherine.	Stakeholders: Project workforce residing off-site Perceived status of impact: Negative Scale: Local/Regional

5.4.2 Housing and Accommodation

A concern for the local community is that the Project will exacerbate existing shortages in housing and land supply and decrease housing affordability. This leads to higher living costs for residents, and particularly affects those on lower to middle incomes who don't own their own home. Lack of short-term rental housing has been identified as a concern for service providers including Government, Health and Education workers who travel to Katherine on a short-term basis to provide essential services.

Section 5.4.1 describes the housing and accommodation strategy adopted for the Project. This housing and accommodation strategy identifies options at a concept planning level. On this basis, social impact risks and opportunities have been identified.

Potential Impact	Explanation	Description
Increase in demand for short-term accommodation. ¹¹	Increase in demand for short-term accommodation (rental houses, hotels/motels etc.) during the Project construction and operations phase. Social baseline research and consultations with key stakeholders have identified concerns that the Project will increase demand for short-term accommodation if additional accommodation is not provided. Vista Gold has responded to these concerns by developing a housing and accommodation strategy that aims to minimise the risk of this social impact. It is expected that the risk of this social impact occurring is greater during the construction phase due to the indirect and flow-on effects of	Stakeholders: Council, Businesses, Government Agencies, Residents particularly those on low to medium income levels Perceived status

¹¹ Only negative elements have been assessed here. Positive impacts are likely to accrue to short-term housing landlords in terms of increased demand for housing.



Potential Impact	Explanation	Description
	the Project. These effects are expected to stabilise during the operations phase as the housing and accommodation market responds to demand and the additional housing proposed by Vista Gold becomes available. Overall this impact will have both positive and negative elements. Positive impacts may accrue to accommodation providers. Negative impacts may impact on existing renters or people looking to move into the area for other reasons. Only the negative dimensions of this impact have been assessed for the purposes of developing Project mitigations. Management and Mitigation: The housing and accommodation strategy proposed is outlined in Section 5.4.1 and will include a purpose-built construction camp to accommodate the construction workforce. For the operations workforce, a 'hybrid' solution is proposed with the provision of additional housing and accommodation for the operations phase. If these strategies are implemented, this social risk will be significantly reduced. It is difficult however to completely address inflationary pressure on the accommodation market from indirect and flow-on impacts. It is also possible that rental stress may occur in the short-term for some stakeholders. Addressing this issue requires a partnership approach between relevant NT Government Agencies, not-for-profit organisations, Council and other employers in the Katherine region. Vista Gold will encourage a 'whole-of-government' approach to this issue and will continue to work with key Project stakeholders to further develop the housing and accommodation strategy for the Project Operations Phase.	of impact: Negative and Positive Scale: Local /Regional
Increase in demand for long-term housing and accommodation	Increase in demand for long-term housing and land during both construction and operation. There is currently limited availability of housing and unconstrained land within Katherine. It is anticipated that additional land would need to be released and additional housing built to accommodate the increased population associated with the Project. Vista Gold commissioned the development of an accommodation and housing strategy. This strategy recommended that for the operations phase a 'hybrid' housing and accommodation solution be implemented. If this solution is implemented then the risk of this impact being negative is greatly reduced in favour of being an overall positive outcome for the Katherine Regional community. Demand for long-term housing associated with the Project during the construction phase is likely to be limited due to the nature of the construction workforce. It is likely that there may be some short-term	Stakeholders: Council, Businesses, Government Agencies, Residents particularly those on low to medium income levels Perceived status of impact: Positive Scale: Local /Regional



Potential Impact	Explanation	Description
	inflationary impacts on land and housing prices due to speculation within the property market. The provision of additional housing is viewed positively by the local community and local Stakeholders as it would lead to a range of positive economic and community impacts. These include flow-on effects in terms of construction jobs and economic stimulus, improving the standard of housing generally available within the area and attracting more families. Management and Mitigation: The housing and accommodation strategy proposed is outlined in Section 5.4.1	
Reduction in affordability of rental housing	Reduction in rental housing affordability from increased demand for housing for Project (direct and indirect). Housing stress occurs when rent or mortgage costs constitute more than 30% of income. Median rent in 2008 was \$310 for a three bedroom house and median household income in 2011 was \$1534. For the population who stated they were Indigenous, the median household income was \$921. Social baseline information for Katherine identified that approximately 42.5% of the Indigenous population and 20.7% of the non-Indigenous population was potentially subject to housing stress. This finding was confirmed anecdotally through the SIA consultations where the relative rental costs were cited as being very high. This information indicates that Katherine is already subject to pressures of rental stress along with other locations in the Northern Territory due to factors unrelated to the Project. Vista Gold's proposed housing and accommodation strategy is described in Section 5.4.1. Vista Gold recognises that timing for implementation of the housing and accommodation strategy is critical to minimise the risks of short-term demand outstripping supply. Management and Mitigation: Refer to Section 5.4.1. Vista Gold will encourage a 'whole-of-government' approach to address this social risk and will continue to work with key Project stakeholders to further develop their housing and accommodation strategy for the Project.	Stakeholders: Council, Businesses, Government Agencies, Residents particularly those on low to medium income levels Perceived status of impact: Positive and Negative Scale: Local /Regional



5.4.3 Economic and employment (Direct and Indirect)

An economic assessment has been undertaken for the Project (Appendix W). Key findings are:

- ▶ Capital expenditure of approximately \$1.5 billion will occur during the construction phase, and will increase and peak at \$330 million annual spend during the operations phase, when the mine is in full production.
- ▶ Over the life of the mine, 11 per cent of the construction expenditure of the mine will be spent in the Katherine region¹²; and in 2020, at full production, 20 per cent of operating expenditure will be spent in the Katherine region.
- ▶ During the construction phase, the direct and flow-on Gross Regional Product in the Katherine region is expected to be around \$27.8 million the peak year for construction (2015). During the operation phase, the direct and flow-on Gross Regional Product in the Katherine region is expected to be \$40.6 million at full production (2020).
- ▶ Total (direct plus flow-on) employment in the Katherine region is expected to increase to 245 full time jobs the peak year for construction (2015). Total (direct plus flow-on) employment in the Katherine region is expected to reach 139 full time jobs when the mine is at full production (2020).

In addition to these, social impacts arising from the expected change in economic and employment opportunities within the Local and Regional Study Area are identified below:

Potential Impact	Explanation	Description
Increase in business opportunities and regional spend	Increase and/or expanded business opportunities associated with economic stimulus from the Project. The Project construction and operations phase will result in an increase in local and regional business opportunities, arising from: ▶ Local subcontracts relating to the supply of goods and services to the construction contractor. Opportunities may include the supply of services relating to trades, earthmoving, cleaning, accommodation and catering, transportation, and civil construction services. As mining activity is already a key economic activity of the local and regional study area, there are existing businesses providing goods and services to the mining and construction sector. These opportunities will maintain or potentially grow revenue and profits for existing local and regional businesses as well as potentially provide impetus for new businesses to become established; ▶ Additional expenditure in the local Katherine/Pine Creek area by non-resident workers. This will particularly benefit retail, food and beverage and entertainment providers. To benefit from these business opportunities, local and regional	Stakeholders: Local and Regional businesses Perceived status of impact: Positive Scale: Local/Regional

¹² In the economics assessment, the Katherine region is defined as the Katherine Statistical Area Level 3 as used by the Australian Bureau of Statistics (code: 70205). This statistical region includes the Local Government Areas of Katherine, Roper Gulf Shire and Victoria-Daly Shire. The Katherine region for the purposes of the economic assessment is therefore broader than the Katherine region profiled in the demographic profile presented in the social impact assessment (Appendix F).



Potential Impact	Explanation	Description
	businesses will need to be competitive with businesses from outside the local and regional study areas. As the construction phase is relatively short, and the operation of the mine has a limited life, businesses will need to be cautious regarding any expansions to meet Project demands. Katherine businesses have expressed an element of 'distrust' in regards to the long-term viability of the Project due to past experiences and so are very aware of these risks. Management and Mitigation: Vista Gold will develop an Industry Participation Plan in consultation with the Northern Territory Industry Capability Network.	
Potential for local inflationary impacts	The potential for the prices for some goods and services to increase due to the increased demand from the Project. Note risks in relation to the housing and accommodation market are addressed under these headings. Some stakeholders expressed concerns that the Project will contribute to local inflationary pressure particularly in relation to housing and accommodation. Although this may occur for some goods and services providers, others (such as retail and food and beverage) may actually reduce or stabilise due to economies of scale. This impact has both positive and negative elements. These potential effects cannot be quantified accurately due to the wide range of variables affecting servicing and pricing. It is also difficult to address these impacts on a project by project basis. These effects will generally correct with time, particularly as the Project moves into the operation phase. Management and Mitigation: No specific management or mitigations are proposed to address this impact. However, Vista Gold will develop an Industry Participation Plan in consultation with the Northern Territory Industry Capability Network. Implementation of this plan will maximise local and regional economic benefits to the region.	Stakeholders : Local and Regional businesses and Residents Perceived status of impact: Positive and Negative Scale: Local/Regional
Reduced focus on traditional customer base	Potential for reduced service provision locally arising from businesses prioritising business associated with the Project, over their existing customer base. While business opportunities for local and regional businesses will generally be positive, some limited adverse impacts may occur. In particular, for small business providing services to the general community, the level of service to existing customers may be reduced if businesses prioritise service to the Project over providing local	Stakeholders: Local and Regional businesses and Residents Perceived status of impact: Positive and Negative



Potential Impact	Explanation	Description
	services. Management and Mitigation: No specific management or mitigations are proposed to address this impact. However, Vista Gold will develop an Industry Participation Plan in consultation with the Northern Territory Industry Capability Network. Implementation of this plan will maximise local and regional economic benefits to the region.	Scale: Local/Regional
Increased employment opportunities	The Project will result in increased direct and indirect employment opportunities associated with both the construction and operations phase. During construction, the majority of direct employment opportunities will be with the nominated construction contractor with limited opportunities available locally. However, for the operations phase an estimated full-time workforce of up to 350 staff is required. Employment opportunities are also likely to arise with local businesses who win sub-contracts to supply goods and services, or through flow-on business activity linked to increased spending in town. Increased employment opportunities may also result in employees working longer hours to meet demand thus benefiting in terms of increased income from overtime and increased job stability. Although the unemployment rate for Katherine is reasonably low at 3.2% in 2010, an increase in employment opportunities in the region is viewed by stakeholders as positive to the region's economic development. Management and Mitigation: Vista Gold will develop and implement an Industry Participation Plan in accordance with the requirements of the Northern Territory Government for major projects. This plan will be based on preferentially sourcing people, goods and services from within the Katherine Region and the Northern Territory to build business, industry and community capability As part of their partnership with the Jawoyn Association, Vista Gold will also develop an Indigenous Employment Strategy.	Stakeholders: Businesses, Unemployed, Residents Perceived status of impact: Positive Scale: Local/Regional

5.4.4 Traffic and Transport Impacts

Potential Impact	Explanation	Description
Increased traffic and transport on	Increased traffic to and from the Project Site along the Stuart Highway.	Stakeholders: Road users and the



Potential Impact	Explanation	Description
Stuart Highway	Stakeholder consultation to date has identified that there is a community perception that the Stuart Highway is 'falling apart' and there are concerns that the Project will exacerbate this. The Project will lead to increased traffic and transport on the Stuart Highway. Project construction will have short-term adverse effects on the existing road network through the addition of construction related traffic. These impacts would be temporary and of a short-term nature. Transport investigations conducted for the Project indicate that the construction and use of the mine will have no adverse impacts on the road network in terms of safety or performance. The existing conditions of the road pavements should be established and the NT Department of Infrastructure will undertake a program of road pavement monitoring and maintenance to mitigate the impacts on road surfaces of mining activities. Management and Mitigation: A detailed Traffic Management Plan will be prepared and approved prior to construction works taking place.	Department of Infrastructure Perceived status of impact: Negative Scale: Local/Regional
Increased risk of spill of hazardous substances	Concerns regarding the increased potential for a spill of hazardous substances was raised as a concern during public consultation. As this issue has been in the Territory media recently there is heightened awareness of this issue which may lead to negative perceptions regarding the Project. Management and Mitigation: There are international standards for the movement of hazardous substances and the movement of these substances will be carried out in accordance with the relevant legislation. Vista Gold will consult with NT Worksafe on how to minimise the risk associated with the movement of hazardous substances.	Stakeholders: Road users Perceived status of impact: Negative Scale: Local/Regional

5.4.5 Community Infrastructure and Services Impacts

Potential Impact	Explanation	Description
Increased demand for community infrastructure and utilities leading to local/regional	Increases in resident population will contribute to the local economy, and coupled with Northern Territory Government support, it is likely that the project would support the expansion of health and other community infrastructure. Building of worker accommodation and mine infrastructure will require some additional community infrastructure supply such as	Stakeholders Council, Utility Providers (Power and Water Corporation) and the Department of Lands, Planning and Environment.



Potential Impact	Explanation	Description
shortfalls	power, water, waste removal and roads. The details of these depend on the location for the worker accommodation. This impact also includes the additional requirement for appropriate design and approval of infrastructure by relevant approval agencies. This impact will have both positive and negative elements depending on stakeholder perspectives. Positive elements may include opportunities for community infrastructure improvements and flow-on economic stimulus. Negative elements include increasing pressure on existing infrastructure including social infrastructure such as schools, recreational facilities, shopping facilities and entertainment venues. Consultation with utility providers is ongoing to further assess these issues. Management and Mitigation: Vista Gold will continue to work with Utility Providers and Key Stakeholders to address this issue and minimise any potential risks of infrastructure shortfalls.	Perceived status of impact: Positive and Negative Scale: Local/Regional
Exacerbation of existing health services shortfalls	Workforce and population increase leading to increased requirement and demand for health services beyond capacity. The majority of the construction workforce is likely to be comprised of FIDO/DIDO workers who will address their health requirements in their place of origin. Impacts on health services and providers for this group will be limited to emergency treatment requirements. With regard to the operation workforce as a significant percentage of these are likely to live in Katherine and nearby areas with their families this will lead to increased pressure on local health services if this population increase is not planned for. Consultation and baseline data establishes that there are existing health shortages within Katherine and the regional community. The Project is likely to exacerbate these unless additional services are provided. Key existing shortage areas include doctors, dentists, physiotherapists and the availability of other specialists which is in turn is leading to increased pressure on emergency services and the Katherine Hospital when people are unable to access private doctors. The composition of the future operational workforce was estimated based on analysis of existing Katherine demographic information, and comparison with other mining towns in the Northern Territory and Western Australia. Based on this, the following demographic composition of the workforce using ABS categories was estimated	Stakeholders affected: Council, Government Agencies, Health Providers, Not-for-Profit Organisations Perceived status of impact: Negative Scale: Local

Potential Impact	Explanation		Description																												
	together with the total impact on the community:																														
	<table><tr><th>Category</th><th>Workforce Number</th><th>Multiplier</th><th>Total</th></tr><tr><td>Persons already residing locally</td><td>60</td><td>-</td><td>-</td></tr><tr><td>Additional single persons</td><td>135</td><td>1</td><td>135</td></tr><tr><td>Couple families</td><td>49</td><td>2</td><td>98</td></tr><tr><td>Couple families with children</td><td>77</td><td>2.6</td><td>200</td></tr><tr><td>Other family type</td><td>29</td><td>2.6</td><td>75</td></tr><tr><td>Total</td><td>350</td><td></td><td>508</td></tr></table>	Category	Workforce Number	Multiplier	Total	Persons already residing locally	60	-	-	Additional single persons	135	1	135	Couple families	49	2	98	Couple families with children	77	2.6	200	Other family type	29	2.6	75	Total	350		508		
Category	Workforce Number	Multiplier	Total																												
Persons already residing locally	60	-	-																												
Additional single persons	135	1	135																												
Couple families	49	2	98																												
Couple families with children	77	2.6	200																												
Other family type	29	2.6	75																												
Total	350		508																												
	Management and Mitigation:																														
	The following management and mitigation controls will be implemented to minimise the potential impacts on health provision:																														
	- First aid capability on the mine site during both construction and operational phases of the Project; - Vista Gold will work closely with the Katherine police, fire and emergency services to effectively plan for any emergencies; - An emergency response plan will be developed and emergency response teams will be established for both construction and operation; - Vista Gold will encourage a 'whole-of-government' approach to this issue and will continue to work with key Project stakeholders to assist in mitigating health service shortfalls.																														

5.4.6 Community Health, Safety and Wellbeing Impacts

Consultations with key stakeholders representing the various community health and service sectors in Katherine identified a number of concerns regarding potential impacts on health provision arising from the Project Workforce. In addition to this, stakeholders also identified concerns regarding the environmental legacy of the Mt Todd Mine particularly in relation to water quality and lack of reporting to the community on issues.



On this basis, the following social impact risks and opportunities have been identified:

Aspect	Impact	Explanation	Description
Community health, safety and wellbeing	Benefits to local/region and national community from rehabilitation of existing mine site	Positive benefits accruing to the local/regional and wider community from rehabilitation of the Mt Todd Mine as a working mine and improved overall environmental management. There are a number of environmental legacy issues associated with the Mt Todd Mine from previous operators. A wide range of stakeholders identified that the re-establishment of the mine would benefit the environment and community through enabling additional resources to be committed to rehabilitation of the Mine. Management and Mitigation: The EIS documents Vista Gold's proposed approach to mine closure and rehabilitation. This, in time, will remove the legacy issues associated with the current site.	Stakeholders: Council, relevant Government Agencies, Residents, Wider community Perceived status of impact: Positive Scale: Local/Regional/Wider
	Decrease in community health, safety and wellbeing (whether real or perceived)	Decline in components of community health and well-being associated with Project (both real and perceived). Consultation with health providers in Katherine have identified that anecdotally, construction workforces are associated with increased instance of mental health issues and sexually transmitted diseases. This concern is also identified in baseline literature reviewed for other mining projects across Australia (Table 2). Management of this potential social impact is through workforce management strategies, codes-of-conduct, provision of information on health and well-being and a partnership approach between health providers and employers. Management and Mitigation: Specific management and mitigation strategies to address this impact will also include: a Workforce Management Strategy governing standards of behaviour and containing appropriate controls. Vista Gold will also implement a community and stakeholder engagement strategy to provide a mechanism for ongoing feedback from the community including service providers both during construction and operation stages.	Stakeholders: Council, Relevant Government Agencies, health providers, not-for-profit organisations Perceived status of impact: Negative Scale: Local/Regional
	Increase in community	Increase in community concerns regarding water quality at the site and of the Edith River.	Stakeholders Council, Government



Aspect	Impact	Explanation	Description
	concerns regarding water quality and risk of environmental contamination	The Project Site has existing environmental and water quality issues that require on-going management. The Mt Todd Mine has an existing historical legacy of poor environmental management under prior operators. This has contributed to a community concerns regarding potential for environmental impacts to occur as a result of the Project. Consultation has confirmed that these concerns currently exist among a large part of the community. These issues, whether real or perceived can have negative impacts on the general community's health, safety and wellbeing. A key aspect in managing perceived concerns regarding environmental impacts is establishing mechanisms for regular reporting and education of the community. These are typically established through a community and stakeholder engagement plan and monitoring strategy that are provided as publically accessible documents. In addition, stakeholder consultation identified the importance of a community reference group that could provide a bridge between the Project and the broader community. This mechanism is well-established within the mining industry and generally consists of an independent chair with representation from the council, NT Government and key stakeholders to the Project. Management and Mitigation: Management and mitigation measures proposed include: • A community and stakeholder engagement plan identifying opportunities for the community to be informed regarding the Project • Community feedback mechanism establishing a system for members of the community to raise questions, concerns or complaints regarding the Project • A dedicated staff member to support community engagement • Regular reporting to the community on the Project including on environmental issues.	Agencies, Health providers, landholders, community Perceived status of impact: Negative Scale: Local/Regional / National
	Negative impacts on vulnerable	This impact relates to negative impacts that may be experienced by vulnerable groups within the community, over and above what may be experienced by the	Stakeholders Council, Government Agencies, Health



Aspect	Impact	Explanation	Description
	groups such as women and Indigenous groups	community generally. As described above, construction workforces are associated with increased instance of anti-social behaviours which can have significant impacts on vulnerable groups such as women, Indigenous people and particularly Indigenous women. Community consultation on this issue identified that this was not a concern for the majority of people consulted but that it was a concern for some individuals. This issue requires careful management and attention due to its perceived sensitivity. Management and Mitigation: Management and mitigation measures proposed include: - Community feedback mechanism establishing a system for members of the community to raise questions, concerns or complaints regarding the Project - Dedicated staff member to support community engagement - Agreement with Jawoyn Association including regular reporting and consultation on arrangements to be established - Establishment of community reference group including ensuring representation of women and vulnerable groups - Workforce behaviour strategies	providers, not-for-profit organisations Perceived status of impact: Negative Scale: Local

5.4.7 Land Use and Property Impacts

Impact	Explanation	Description
Impacts on downstream and near neighbours	This impact relates to impacts that may be experienced either downstream of the Project site or to adjacent properties. This includes the Aboriginal community of Werenbun who are the closest community to the Project Site. Potential impacts may include spread of weeds, disturbance, loss of amenity, concerns regarding water quality etc. A range of positive benefits may also accrue to landholders from Project implementation of a 'Near Neighbour' policy including assistance with shared land management responsibilities.	Stakeholders Council, landholders Perceived status of impact: Negative and Positive Scale: Local



Impact	Explanation	Description
	Management and Mitigation: Management and mitigation measures proposed include the development of a 'Near Neighbour' program in consultation with nearby landholders. This will include a regular system of contact with landholders to monitor any changes on properties and the road network and to implement mitigation measures as agreed.	

5.4.8 Indigenous resources, values and aspirations

Consultation with residents of Indigenous decent, the Jawoyn Association and residents of nearby Aboriginal communities identified a range of potential positive and negative impacts associated with the Project. Refer to the Public Consultation Report (GHD 2013) for further detail on consultation activities undertaken.

On this basis, the following social impact risks and opportunities have been identified.

Potential Impact	Explanation	Description
Indigenous employment and business opportunities	Positive employment and business opportunities arising from the Project for Indigenous people. Vista Gold is committed to providing employment and business opportunities for Indigenous people in the Katherine region. The Jawoyn Board (representing Jawoyn Traditional Owners) are partners in the Project and are negotiating with Vista Gold through a separate contractual agreement regarding specific employment and business opportunities. It is anticipated that the Project will lead to increased opportunities for Jawoyn Traditional Owners and other Indigenous people to engage in business ventures either directly or indirectly related to the Project. These opportunities' may include providing goods and services to the Project such as transportation of mine workers, provision of construction workers. The provision of these opportunities is viewed positively by the Jawoyn Association and Traditional Owners consulted. Management and Mitigation: Negotiation and agreement of partnership agreement between Vista Gold and the Jawoyn Association.	Stakeholders: Jawoyn Traditional Owners, Jawoyn Association, people of Indigenous descent Perceived status of impact: Positive Scale: Local/Regional
Potential for exacerbation of existing community conflicts	At the time of undertaking this SIA there remained some uncertainty and community conflict regarding how Indigenous people would benefit from the Project. There was a perception that some groups would benefit and others would be left out. Although a lot of people consulted were supportive of the project on the basis of the	Stakeholders: Indigenous groups and individuals Perceived status of



Potential Impact	Explanation	Description
	employment and economic development opportunities it provided there were also significant tensions within the Indigenous community regarding the Project. There is potential for the Project to exacerbate existing tensions and conflict within Indigenous groups in the region depending on how partnership, engagement and employment activities are undertaken. Management and Mitigation: ▸ Negotiation and agreement of partnership agreement between Vista Gold and the Jawoyn Association. ▸ A specific Indigenous consultation strategy developed as a component of community and stakeholder engagement initiatives that clearly identifies how Indigenous groups and communities in the region will be consulted.	impact: Negative Scale: Local/Regional
Traditional Owner Cultural Heritage and Resources	Surveys have identified the presence of a number of aboriginal and European sites on the mineral leases. Some of these sites have high cultural heritage significance. Management and Mitigation: ▸ Ensure all Aboriginal Areas Protection Authority Certificates are current for the Mt Todd Project Area. ▸ Avoid where possible the major sites identified. ▸ Implement a Cultural Heritage Management Plan prior to commencement of invasive exploration and mining works. ▸ For the Aboriginal archaeological sites located in proposed work areas which cannot be avoided, commence application for a work approval under the <i>Northern Territory Heritage Act 2011</i>. Consultations with the Traditional Owners should be a part of the management, permitting and possible salvage of these sites.	Stakeholders: Jawoyn Traditional Owners Perceived status of impact: Negative Scale: Local/Regional

5.5 Summary of Social Impacts

A summary of social impacts and their significance assessment is provided in Table 35.

Table 35 Summary Social Impact and Significance Assessment

Aspect	Potential impacts and opportunities	Project Phase	Perceived status of impact ¹³	Mitigation and Management Strategies											Residual Social Risk (Likelihood/Consequence/Significance)
				Land Compensation Program	Project Design	Community and Stakeholder Engagement	Workforce Management Strategy	Housing and Accommodation Strategy	Industry Participation Plan	Vista Gold Sponsorship	EIS Technical Environmental Management	Jawoyn Partnership Agreement	Monitoring Program	Near Neighbour Program	
Workforce	Lack of social integration of workforce	Construction	Negative			√	√	√		√			√		Possible/Minor/Low
		Operation	Negative			√	√	√		√			√		Possible/Minor/Low
	Increased incidence of anti-social behaviour	Construction	Negative			√	√	√		√			√		Possible/Minor/Low
		Operation	Negative			√	√	√		√			√		Possible/Minor/Low
	Exacerbation of existing labour and skills shortages ¹⁴	Construction	Negative			√	√		√				√		Possible/Minor/Low
		Operation	Negative			√	√		√				√		Possible/Minor/Low
	Cross-over employment impacts	Construction	Negative		√				√				√		Possible/Minor/Low
		Operation	Negative						√				√		Possible/Minor/Low
	Decline in worker well-being	Construction	Negative		√		√	√					√		Possible/Moderate/Medium
		Operation	Negative		√		√	√					√		Possible/Moderate/Medium
	Increase in worker life-style opportunities	Construction	Positive				√	√					√		Likely/Moderate/Medium
		Operation	Positive				√	√					√		Likely/Moderate/Medium
		Construction	Negative				√				√		√		Possible/Minor/Low
	Fatigue-related impacts associated with worker travel (non Fly-in-Fly-out impacts)	Operation	Negative				√	√			√		√		Likely/Moderate/Medium
		Construction	Negative		√	√		√					√		Likely/Moderate/Medium
Housing and accommodation	Increase in demand for short-term accommodation ¹⁵	Operation	Negative		√	√		√					√		Possible/Minor/Low
		Construction	Negative		√		√	√					√		Likely/Moderate/Medium
	Increase in demand for long-term accommodation	Operation	Positive		√		√	√					√		Very Likely/Major/High
		Construction	Negative		√		√	√					√		Possible/Moderate/Medium

¹³ Status is based on the perspective of affected stakeholders

¹⁴ Only negative elements assessed

¹⁵ Only negative elements assessed

Aspect	Potential impacts and opportunities	Project Phase	Perceived status of impact ¹³	Mitigation and Management Strategies											Residual Social Risk (Likelihood/Consequence/Significance)
				Land Compensation Program	Project Design	Community and Stakeholder Engagement	Workforce Management Strategy	Housing and Accommodation Strategy	Industry Participation Plan	Vista Gold Sponsorship	EIS Technical Environmental Management	Jawoyn Partnership Agreement	Monitoring Program	Near Neighbour Program	
	Reduction in affordability of rental housing ¹⁶	Operation	Negative		√		√	√					√		Possible/Minor/Low
		Construction	Positive		√			√	√				√		Very Likely/Major/High
Economic and Employment	Increase in business opportunities and local/regional spend	Operation	Positive		√		√		√				√		Very Likely/Major/High
		Construction	Positive and Negative						√				√		Possible/Minor/Low
	Potential for local inflationary impacts ¹⁷	Operation	Positive and Negative						√				√		Possible/Minor/Low
		Construction	Negative			√			√				√		Possible/Minor/Low
	Reduced focus on traditional customer base ¹⁸	Operation	Negative			√			√				√		Possible/Minor/Low
		Construction	Positive		√				√				√		Very Likely/Moderate/High
	Increased employment opportunities	Operation	Positive		√				√				√		Very Likely/Extreme/Excessive
		Construction	Negative ¹⁹		√			√			√		√		Possible/Minor/Low
Community infrastructure and services	Increased demand for community infrastructure and utilities leading to local/regional shortfalls	Operation	Negative		√			√			√		√		Possible/Minor/Low
		Construction	Negative				√	√			√		√		Likely/Minor/Low
	Exacerbation of existing health shortfalls	Operation	Negative				√	√			√		√		Likely/Moderate/Medium
		Construction	Positive			√					√		√		Likely/Moderate/Medium
Community health, safety and wellbeing	Benefits to local/region and national community from rehabilitation of existing mine site	Operation	Positive			√					√		√		Likely/Moderate/Medium
		Construction	Negative		√	√		√			√		√		Possible/Minor/Low

¹⁶ Only the negative elements of this impact are assessed given the early stage of investigations into site-specific components of housing and accommodation provision

¹⁷ Positive aspects of this impact are considered under increased regional/local spend

¹⁸ Only negative elements assessed

¹⁹ Only the negative elements of this impact are assessed given the early stage of investigations into site-specific components of housing and accommodation provision

Aspect	Potential impacts and opportunities	Project Phase	Perceived status of impact ¹³	Mitigation and Management Strategies											Residual Social Risk (Likelihood/Consequence/Significance)
				Land Compensation Program	Project Design	Community and Stakeholder Engagement	Workforce Management Strategy	Housing and Accommodation Strategy	Industry Participation Plan	Vista Gold Sponsorship	EIS Technical Environmental Management	Jawoyn Partnership Agreement	Monitoring Program	Near Neighbour Program	
	Decrease in community health, safety and wellbeing (whether real or perceived)	Operation	Negative		√	√		√			√		√		Possible/Minor/Low
		Construction	Negative			√	√	√					√		Possible/Moderate/Medium
	Negative impacts on vulnerable groups within community including those on lower incomes; women and children (particularly those of Aboriginal and Torres Strait Islander descent)	Operation	Negative			√	√	√					√		Possible/Moderate/Medium
		Construction	Negative			√	√				√		√		Possible/Minor/Low
	Increase in community concerns regarding water quality and risk of environmental contamination	Operation	Negative			√	√				√		√		Possible/Minor/Low
		Construction	Negative and Positive											√	Likely/Minor/Low
Property and Land use impacts	Impacts on downstream and near neighbours	Operation	Negative and Positive											√	Likely/Minor/Low
		Construction	Positive			√						√	√		Very Likely/Major/High
Indigenous resources, values and aspirations	Indigenous employment and business opportunities	Operation	Positive			√						√	√		Very Likely/Major/High
		Construction	Negative			√						√	√		Likely/Moderate/Medium
	Potential for exacerbation of existing community conflicts	Operation	Negative			√						√	√		Likely/Moderate/Medium
		Construction	Negative										√		Likely/Moderate/Medium
	Traditional Owner cultural heritage and resources	Operation	Negative										√		Likely/Moderate/Medium
		Construction	Negative										√		Likely/Minor/Low
Traffic and Transport	Increased traffic and transport on Stuart Highway	Operation	Negative										√		Likely/Minor/Low
		Construction	Negative										√		Likely/Minor/Low
	Increased risk of spill of hazardous substances	Operation	Negative										√		Likely/Minor/Low



6. Social Impact Management Strategies

The social impact assessment has informed Project design decisions in relation to the following matters:

- ▶ Selection of appropriate contractors based on their ability and commitment to the social impact management strategies detailed in this section;
- ▶ Development of the proposed housing and accommodation strategy for the Project including the decision to locate construction work camps away from Katherine and Pine Creek;
- ▶ Development and implementation of Occupational Health and Safety Policies for construction and operation;
- ▶ Development of a Construction Environmental Management Plan (CEMP) to address noise and dust and other potential environmental impacts associated with construction activities;
- ▶ Development of a Traffic Management Plan to address:
 - Potential safety issues associated with construction related traffic; and
 - Management of traffic to avoid delays to existing traffic
- ▶ Preparation of a Site Safety Plan that will include preventative measures for a range of on and off-site incidents that might impact on community health and safety; and
- ▶ Provision of an Emergency Response Plan that will include measures to address any emergency incidents that might involve members of the public.

The following section provides additional information on potential social impact management and mitigations strategies for consideration by Vista Gold or its contractors.

6.1 Workforce Management Strategy

A Workforce Management Strategy should be developed for both construction and operations phases of the Project. It should include:

- ▶ Workforce sourcing;
- ▶ A workforce Code of Conduct, incorporating behavioural standards, linked to employee contract conditions. Clear consequences for workers not adhering to behavioural standards will be set out, including dismissal for serious non-conformances or repeated offences;
- ▶ Workforce health, safety and wellbeing policies including strategies to manage worker fatigue associated with travel and well-being of workers within accommodation camps;
- ▶ Adopting industry standard Code of Conduct as part of regular tool-box meetings for the construction and operation workforce where workers are reminded of the Code of Conduct and consequences for not meeting it;
- ▶ Employee induction (covering aspects of worker behaviour, company expectations, community perceptions of behaviour etc.); and
- ▶ Occupational health and safety for employees, contractors and sub-contractors.



6.2 Housing and Accommodation

Further develop and refine the housing and accommodation strategy as described in Section 5.4.1.

6.3 Employment, Education and Training

- ▶ Develop and implement an Industry Participation Plan in accordance with the requirements of the Northern Territory Government for major projects;
- ▶ This plan will be based on preferentially sourcing people, goods and services from within the Katherine Region and the Northern Territory to build business, industry and community capability;
- ▶ Aim to use local (Katherine Region) businesses to fill contract positions (e.g. catering, cleaning, fuel supply, light vehicle maintenance etc.) provided contractors are competitive and appropriately skilled; and Work with local and Territory training providers to ensure that local training programs will give unskilled people the skills and training necessary to gain employment in the Project. A list of those currently identified is included in Table 36 Training and Employment Service.

6.4 Community and Stakeholder Engagement

The following strategies relating to community and stakeholder engagement may be undertaken:

- ▶ Develop a community and stakeholder engagement plan detailing mechanisms for ongoing community consultation and feedback on the Project including establishing a community reference group;
- ▶ Continue to work with key Project stakeholders including the NT Government, Katherine Town Council, Victoria Daly Shire Council and Roper Gulf Shire Council, the Jawoyn Association and others as required to minimise social issues;
- ▶ Continue to develop and operate the Mt Todd Project Website and toll-free number to provide a point of contact for interested members of the community to obtain information on the Project;
- ▶ Establish an incident/action management system to provide a transparent and equitable mechanism for responding to any community suggestions or concerns; and
- ▶ Establish a Community and Stakeholder Relations Role for the Project prior to Project construction.

6.5 Vista Gold Sponsorship Program

- ▶ Establish a community sponsorship fund to contribute to community development initiatives. This will include the development of criteria for sponsorship and a clear and transparent selection process advertised through the Project web page.

6.6 Near Neighbour Program

- ▶ Develop a 'Near Neighbour' program to be implemented with adjacent and downstream landholders. This will be a regular system of contact with landholders to monitor any changes on properties and the road network and implement mitigation measures as agreed. Landholders will have a single point of contact with a structured communication system in place to ensure a quick and efficient response to any issues that may arise. Any required mitigation measures will be implemented within agreed timeframes.



- ▶ The 'Near Neighbour' program will be developed in consultation with landholders, identifying the respective roles and responsibilities of the Proponent and landholders.

6.7 Industry Participation Plan

- ▶ Prepare an Industry Participation Plan for the Project. This plan will be prepared consistent with the template provided by the Northern Territory Government.
- ▶ The plan will include the following matters:
 - How services, suppliers and labour will be utilised;
 - How the Project will enhance local business and industry capability;
 - What the regional economic benefits will be;
 - Opportunities for Indigenous participation;
 - Communication with local industry; and
 - How success will be reported on.

6.8 Jawoyn Partnership Agreement

- ▶ As part of the partnership agreement with the Jawoyn Association continue to work with the Jawoyn Traditional Owners towards the achievement of economic and employment aspirations of the Jawoyn people;
- ▶ Establish clear mechanisms for ongoing collaboration, communication and reporting between Vista Gold and the Jawoyn Association including mechanisms for any dispute resolution.



7. Monitoring and Reporting

Refer to the Social Impact Management Plan (Appendix C) for monitoring and reporting information.



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Appendix A

Significance Assessment Methodology



Social Impact Significance Matrix

A social impact significance matrix was employed as the main tool for assessing the significance of the potential social impacts. The matrix is a table which lists and describes the various impacts that have been identified as possibly resulting from the proposed Project. The table does not weight impacts against each other, rather they are displayed and assessed individually, to paint a picture of the impacts and allow an overall discussion regarding the proposal. The purpose of the significance matrix is also to identify priority areas for mitigation and management actions.

It is acknowledged that assessing the significance of social impacts involves subjective judgements on behalf of the assessor (Vanclay, 2001). Social impacts are felt or experienced by stakeholders, and different stakeholders may therefore assign differing significances to the same impacts, depending on their particular situation. Two strategies have been used to manage and reduce the subjective nature of the assessment process:

- By clearly outlining the assessment processes, criteria and arguments the SIA team have used to assign significance a larger degree of transparency in the process is achieved;
- By basing the assessment on a variety of sources, including extensive consultation with directly impacted stakeholders, the robustness of the significance assessment is augmented.

All the data sources used throughout the previous steps in the SIA have been analysed to determine impact significance.

The completion of the social impact significance matrix involves the following components:

- Identification of impacted stakeholders;
- Likelihood/consequence rating;
- Status of impact;
- Duration of impact;
- Spatial extent of the impact;
- Stakeholder importance.

The process of assessing the significance of the social impacts is undertaken for the current Project design. Based on this, a social impact management plan is developed, involving impact mitigation and enhancement. A second assessment is then carried out taking proposed mitigation and enhancement measures into account, identifying whether there is a risk of a residual impact.

Significance Assessment Process

Step 1: Identification of Impacted Stakeholders

This considers the stakeholders likely to be impacted by the proposed Project. The stakeholder groups are not ranked but used for descriptive purposes only. Each impact is linked to at least one stakeholder group.

Step 2: Likelihood / Consequence Rating

This step involves, first, assessing the likelihood that the impact will occur (Table 37). Second, it involves assessing the consequence of each of the identified social impacts. It is important to remember here that the consequence refers to the consequence *on the impacted stakeholder*.



As the consequence refers to the consequence on the impacted stakeholder, it is not possible to provide an exhaustive definition for each rating and for all stakeholders. Rather the proposed descriptions consist of indicative criteria for a number of stakeholder groups.²⁰ Table 38 and Table 39 show indicative criteria for assessing the consequences on the stakeholders.

The results are then combined into a likelihood/consequence matrix, assigning a significance rating to the social impact (Table 40).

Table 37 Descriptions of Likelihood

Likelihood	Description
Certain	The identified social impact will definitely occur (100%)
Very likely	There relative certainty that the impact will occur (75% certain)
Likely	The identified social impact is likely to occur (60% certain)
Possible	It is possible for the social impact to occur (40% certain)
Unlikely	The identified social impact is unlikely to occur (25% certain)
Very unlikely	It will be very unlikely for the social impact to occur (5% certain)

Table 38 Indicative Criteria for Negative Social Impacts

Rating	Indicative criteria
Extreme	<i>Individuals and families:</i> Death and serious injury, disability, personal bankruptcy, severe stress and mental illness, severance of strong connections to places and communities
	<i>Businesses:</i> bankruptcy, close down of business
	<i>Communities:</i> Tensions leading to widespread violence, rapid geographic change of large proportion of local area, rapid large scale population changes such as relocation of majority of population, destruction of cultural objects of large significance
	<i>Project proponent:</i> multiple fatalities caused by Project, serious nation-wide impact to Projects reputation, media coverage at the state level by more than one source
Major	<i>Individuals and families:</i> Injury, serious illness, severe financial hardship, long-term unemployment, severance of connections to places and communities, severe stress
	<i>Businesses:</i> Severe financial hardship, large noticeable impact to business in terms of changing revenue, number of employees
	<i>Communities:</i> Large scale social tensions, rapid geographic and social change to a significant proportion of area or population, rapid change to way of life or, profanation of important cultural objects
	<i>Project Proponent:</i> Single fatality or permanent major disability of a member of the public or construction workforce, improvement or damage to the Project's reputation at the local level, media coverage at the state level by one source or local level by more than one source. Proliferous calls from dissatisfied or supportive stakeholders

²⁰ While every reasonable care has been taken to remain neutral, the indicative criteria are still likely to exhibit a bias related to the context in which they have been developed. It is important to remember that they constitute a professional judgement based on the experience of the SIA team. Groups of stakeholders may assign different ranks to the criteria identified.



Rating	Indicative criteria
Moderate	<i>Individuals and families:</i> Recoverable but long-term illness, severe nuisances and disruptions, short-term financial hardship, short-term unemployment, disruption to family life, stress <i>Businesses:</i> Short-term financial hardship, noticeable impacts to business in terms of changing revenue, number of employees <i>Communities:</i> localised or occasional social tension, geographic change to part of the area, social change to small proportion of community such as relocation of a minority of community, loss of some important areas/buildings such as parks and meeting places <i>Project proponent:</i> Recoverable accidents, improvement or damage to the Project's reputation, media coverage at the local level by more than one source, several calls from dissatisfied or supportive stakeholders
Minor	<i>Individuals and families:</i> Short-term recoverable illness, manageable nuisances and disruptions, changing employment situations (but not deteriorating), easily manageable stress <i>Businesses:</i> Changing but not deteriorating business conditions, practical challenges with minor financial implications <i>Communities:</i> Social tension between individual members of community, social or geographic change to small part of community <i>Project proponent:</i> Incident leading to medical treatment, improvement or damage to the Project's reputation within industry, media coverage at the local level, calls from a few dissatisfied or supportive stakeholders
Insignificant	<i>Individuals and families:</i> minor nuisance or disruptions, no accidents or illness <i>Businesses:</i> Practical challenges, no financial implications <i>Communities:</i> harmoniously managed social changes, localised (very small proportion of community) change to geographic or social set up <i>Project proponent:</i> On site first aid incident, improvement or damage to the Project's reputation, no media coverage, no calls from dissatisfied or supportive stakeholders

Table 39 Indicative Criteria for Positive Social Impacts

Rating	Indicative criteria
Extreme	<i>Individuals and families:</i> Significantly increased health and social and emotional wellbeing. Sustainable increase in economic prosperity, such as long-term employment opportunities and career prospects to men and women. Significantly increased access to training and education. Significantly increased access to services <i>Businesses:</i> Significantly increased business opportunities and profits for the long-term <i>Communities:</i> Significantly increased general community wellbeing. Significant and sustainable reduction in violence and crime, and positive changes to community aspirations. Recognition of, support for and long-term preservation of cultural objects, artefacts and practices <i>Project proponent:</i> Very strong and widespread community support for the Project. Sustained positive nationwide media coverage
Major	<i>Individuals and families:</i> Increased health and social and emotional wellbeing. Widespread employment opportunities. Increased access to training and education



Rating	Indicative criteria
	<i>Businesses:</i> Noticeable increase in business opportunities, increased profits <i>Communities:</i> Strongly increased community wellbeing, significant reduction in crime and violence, positive changes to community aspirations. Recognition of and support for cultural practices, objects and artefacts <i>Project Proponent:</i> Strong support for the Project. Nationwide positive media coverage
Moderate	<i>Individuals and families:</i> Increase to health and wellbeing for some individuals. Some employment, training and education opportunities <i>Businesses:</i> Increased revenues and profits <i>Communities:</i> Increased community wellbeing, reduction in crime and violence. Recognition of cultural practices, objects and artefacts. <i>Project proponent:</i> Some local support for the Project, some local, regional and nationwide positive media coverage
Minor	<i>Individuals and families:</i> Increased access to services, short-term employment opportunities. Some training opportunities. <i>Businesses:</i> Business conditions changing slightly to the positive <i>Communities:</i> Slightly increased community wellbeing <i>Project proponent:</i> Occasional local and regional positive media coverage
Insignificant	<i>Individuals and families:</i> Some short-term employment opportunities. Health and social wellbeing virtually unchanged <i>Businesses:</i> Practical benefits, no financial implications <i>Communities:</i> Community wellbeing virtually unchanged. Some changes (not negative) to cultural practices, objects and artefacts <i>Project proponent:</i> Localised neutral media coverage

Table 40 Assessment of Likelihood and Consequences of Identified Negative Social Impacts

Likelihood of Social Impact	Consequence of Social Impact				
	Insignificant	Minor	Moderate	Major	Extreme
Almost Certain	Medium	Medium	High	Excessive	Excessive
Very Likely	Low	Medium	High	High	Excessive
Likely	Low	Low	Medium	High	Excessive
Possible	Negligible	Low	Medium	High	High
Unlikely	Negligible	Low	Low	Medium	High
Very Unlikely	Negligible	Negligible	Low	Medium	Medium

Step 3: Status of Impact

The status of the impact considers whether the impact is positive, negative or neutral. It is important to remember that the same impact can have a different status for different stakeholders.

Step 4: Duration

The duration of the impact refers to how long the social impact will potentially occur (Table 41).

Table 41 Duration of the Social Impact

Rating	Description
Long	Lasting beyond the construction phase of the Project
Medium	Lasting for the full duration of the construction phase of the Project
Short	Less than the full duration of the construction phase of the Project

Step 5: Spatial Extent

This considers the geographical scale of the proposed impact. The social impacts of the Project may be felt within the physical extent of the Project, or at the local, regional, or state/national level (Table 42).

Table 42 Spatial Extent of the Spatial Impact

Rating	Proposed Description
State/National	In all levels of study areas
Regional	In both the local and regional study areas
Local	In the local study area
Project footprint	Only within the physical footprint of the Project



Step 6: Stakeholder Importance

The stakeholder importance describes how important an impact is to the affected stakeholders. Establishing the importance of an impact complements the significance determination as it allows the affected stakeholders themselves to describe how important an impact is to them. A social impact identified as being non-significant by the SIA practitioner may be very important to the affected stakeholders, and vice versa.

Information regarding stakeholder importance has been gathered solely during consultation. Importance ratings are provided in Table 43.

Table 43 **Acceptability of the Social Impact**

Rating	Proposed Description
High	A majority of the affected stakeholders have indicated that the social impact is very important to them.
Medium	Some stakeholders have indicated that the social impact is important to them, some have indicated it is of little importance.
Low	A majority of affected stakeholders have indicated that the impact is of little importance to them. Few stakeholders have indicated it is important.



Appendix B

EIS Preparation Guidelines



NT Environment Protection Authority (formerly NRETAS) Guidelines – September 2011	Response
Section 4.8 Social Impact Assessment	
Conduct a Social Impact Assessment (SIA) to gauge community values and opinions on the potential impacts of the Mt Todd Gold Project in the region. The SIA should: Identify key stakeholders, regional community structure and community vitality (including demography, health, education and social well-being, access to services and housing etc)	Social Impact Assessment Report and Public Consultation Report Social infrastructure section of SIA Report (Section 4.3.9)
Include ongoing consultation with stakeholder groups to ensure the full range of community viewpoints are sought. The proponent is to outline its proposed methods for community consultation, including how it will respond to community feedback, questions and concerns In a formal, publicly accessible communication plan for the Project.	Public Consultation Report - Community and Stakeholder Consultation (Section □)
Estimate local employment including a breakdown of skills/trades required and specific opportunities for skills development Indicate where the workforce will be sourced and commute arrangements for non-local workforce personnel. Direct and indirect employment, training and business opportunities associated with the Project particularly in relation to Indigenous employment and training programs and how this would be managed and implemented. Recreational users, local health services, etc.	Social Impact Assessment Report – Workforce Impacts (Section 5.4.1) Economic Assessment Report Social infrastructure section of SIA Report (Section 4.3.9)
Outline accommodation requirements and arrangements for construction and	Accommodation and housing



operation activities and associated infrastructure and services required; Discuss the potential negative social impacts that could arise from the Project including the impacts of the Project on affected landowners and communities.	Community Infrastructure Section 5 Social Impact Assessment
Discuss the potential positive social benefits that could be realised from the Project; Provide information on impacts from additional road transport that may affect the community; Identify and discuss expected regional, Territory or national benefits and costs (including those that cannot be adequately described in monetary or physical terms e.g. effects on cultural and aesthetic amenity), in the short and long-term; Develop management controls to minimise the negative social impacts and optimise the positive opportunities.	Section 5 Social Impact Assessment Traffic and Transport Impacts Section 5 Social Impact Assessment Social Impact Management Plan
Section 4.8.2 Socio- Economics	
The EIS should describe the socio-economic characteristics of the local, regional and Northern Territory communities (including a prediction of trends- over the expected operational life of the Project); The section should present a balanced broad summary of the Project's impact on the local, regional and Northern Territory economies in terms of direct effects on employment, income and production; It should outline the overall economic benefits of the Project, the likely contribution of the Project to the development of mining industry, regional economic development; and Indigenous economic development in the Northern Territory, employment and skills development outcomes and linkages with	Section 4 Social Baseline Economic Impact Assessment Report

[illegible]



Appendix C

Social Impact Management Plan



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Vista Gold Australia Pty Ltd
Mt Todd Gold Project
Social Impact Management Plan

June 2013



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Executive Summary

Summary of Potential Social Impacts

The potential key social impacts identified through the SIA process are summarised below (and detailed in Appendix F):

Impact	Status of Impact	Impacted Party
Workforce (Requirement, Availability, Sourcing, Shift Management, Cumulative)		
Lack of social integration of workforce	Negative	Local community
Increased incidence of anti-social behaviour	Negative	Local community
Exacerbation of existing labour and skills shortfalls	Negative and Positive	Employers
Cross-over employment impacts	Negative	Employers
Decline in worker well-being associated with a FIFO or DIDO workforce	Negative	Workforce
Increase in worker life-style opportunities associated with a FIFO workforce	Positive	Workforce
Fatigue related risk of accidents – related issues associated with worker travel between place of work and home residence	Negative	Workforce Local community
Housing and Accommodation Impacts		
Increase in demand for short-term accommodation	Negative and Positive	Local community
Increase in demand for long-term accommodation	Positive	Local community
Reduction in affordability of rental housing	Negative and Positive	Local community
Economic and employment (Direct and indirect)		
Increase in business opportunities and regional spend	Positive	Local and regional businesses
Increased local capability to service large projects	Positive	Local and regional businesses
Local inflationary impacts	Positive and Negative	Local community
Reduced focus on traditional customer base	Negative and Positive	Local and regional businesses
Increased employment opportunities	Positive	Local community
Traffic and Transport		
Increased traffic and transport on Stuart Highway	Negative	Road users
Increased local capability to carry freight	Positive	Local and regional businesses
Increased risk of spill of hazardous substances	Negative	Local and regional community



Impact	Status of Impact	Impacted Party
Community Infrastructure and Services		
Increased demand for community infrastructure and utilities leading to local/regional shortfalls	Positive and Negative	Local community
Increased demand for school placements	Negative and positive	Local community
Exacerbation of existing health services shortfalls	Negative	Local community
Impacts on Community Values		
Benefits to local/regional and national community from rehabilitation of existing contaminated mine site	Positive	Local community
Decrease in community health, safety and wellbeing (whether real or perceived)	Negative	Local community
Increase in community concerns regarding water quality and risk of environmental contamination	Negative	Local community
Negative impacts on vulnerable groups such as women and Indigenous groups	Negative (some individuals)	Vulnerable groups
Land Use and Property Impacts		
Impacts on downstream and near neighbours	Negative and Positive	Adjacent landholders
Indigenous resources, values and aspirations		
Indigenous employment and business opportunities	Positive	Jawoyn Association Indigenous groups and individuals
Potential for exacerbation of existing community conflict	Negative	Indigenous groups and local community
Traditional Owner cultural heritage and resources	Negative	Indigenous groups and individuals

To address the potential impacts the following management strategies and actions will be considered:

Workforce Management Strategy

A Workforce Management Strategy should be developed for both construction and operations phases of the Project. It should include:

- Workforce sourcing;
- A workforce Code of Conduct, incorporating behavioural standards, linked to employee contract conditions. Clear consequences for workers not adhering to behavioural standards will be set out, including dismissal for serious non-conformances or repeated offences;
- Workforce health, safety and wellbeing policies including strategies to manage worker fatigue associated with travel and well-being of workers within accommodation camps;



- ▶ Adopting industry standard Code of Conduct as part of regular tool-box meetings for the construction and operation workforce where workers are reminded of the Code of Conduct and consequences for not meeting it;
- ▶ Employee induction (covering aspects of worker behaviour, company expectations, community perceptions of behaviour etc.); and
- ▶ Occupational health and safety for employees, contractors and sub-contractors.

Housing and Accommodation Strategy

The housing and accommodation strategy will be further developed in consultation with the NT Government and key regional stakeholders such as the Local Council

Employment, education and training

- ▶ Develop and implement an Industry Participation Plan in accordance with the requirements of the Northern Territory Government for major projects;
- ▶ This plan will be based on preferentially sourcing people, goods and services from within the Katherine Region and the Northern Territory to build business, industry and community capability;
- ▶ Aim to use local (Katherine Region) businesses to fill contract positions (e.g. catering, cleaning, fuel supply, light vehicle maintenance) provided contractors are competitive and appropriately skilled; and
- ▶ Work with local training providers to ensure that local training programs will give unskilled people the skills and training necessary to gain employment in the Project.

Community and Stakeholder Engagement

- ▶ Develop a Community and Stakeholder Engagement Plan detailing mechanisms for ongoing community consultation and feedback on the Project including establishing a community reference group;
- ▶ Continue to work with key Project stakeholders including the NT Government, Katherine Town Council, Victoria Daly Shire Council and Roper Gulf Shire Council, the Jawoyn Association and others as required to minimise social issues;
- ▶ Continue to develop and operate the Mt Todd Project Website and toll-free number to provide a point of contact for interested members of the community to obtain information on the Project;
- ▶ Establish an incident/action management system to provide a transparent and equitable mechanism for responding to any community suggestions or concerns; and
- ▶ Establish a Community and Stakeholder Relations Role for the Project prior to Project construction.

Vista Gold Sponsorship Program

- ▶ Establish a community sponsorship fund to contribute to community development initiatives. This will include the development of criteria for sponsorship and a clear and transparent selection process advertised through the Project web page.



Near Neighbour Program

- ▶ Develop a 'Near Neighbour' program to be implemented with adjacent and downstream landholders. This will be a regular system of contact with landholders to monitor any changes on properties and the road network and implement mitigation measures as agreed. Landholders will have a single point of contact with a structured communication system in place to ensure a quick and efficient response to any issues that may arise. Mitigation measures will be implemented within agreed timeframes; and
- ▶ The 'Near Neighbour' program will be developed in consultation with landholders, identifying the respective roles and responsibilities of the Proponent and landholders.

Industry Participation Plan

- ▶ Prepare an Industry Participation Plan for the Project. This plan will be prepared consistent with the template provided by the Northern Territory Government and guidance from the Northern Territory Industry Capability Network.
- ▶ The plan should include the following matters:
 - How services, suppliers and labour will be utilised;
 - How the Project will enhance local business and industry capability;
 - What the regional economic benefits will be;
 - Opportunities for Indigenous participation;
 - Communication with local industry;
 - How success will be reported on.

Jawoyn Partnership Agreement

- ▶ As part of the partnership agreement with the Jawoyn Association, continue to work with the Jawoyn Traditional Owners towards the achievement of economic and employment aspirations of the Jawoyn people; and
- ▶ Establish clear mechanisms for ongoing collaboration, communication and reporting between Vista Gold and the Jawoyn Association including mechanisms for any dispute resolution.

SIMP Monitoring and Reporting

A social impact monitoring program should be developed in consultation with the key stakeholders during the finalisation of this Plan. The key objectives of the monitoring program should be able to demonstrate:

- ▶ Compliance with the EIS and SIMP commitments;
- ▶ Track the identified impacts and the delivery of their mitigation strategies;
- ▶ Identify new impacts arising from changing conditions and develop responses; and
- ▶ Enable regular stakeholder contact and feedback.

To facilitate the monitoring process various reporting mechanisms should be put in place such as:

- ▶ Community and stakeholder newsletters;
- ▶ Reporting on a regular basis to a community reference group; and
- ▶ Internal reporting by Vista Gold on a regular basis.



1. Introduction

1.1 Proponent

The Proponent for this Project is Vista Gold Australia Pty Ltd (Vista Gold).

1.2 Purpose of the SIMP

The Social Impact Management Plan (SIMP) has been developed to:

- ▶ Summarise social impacts and affected stakeholders identified through the social impact assessment process;
- ▶ Describe Vista Gold's impact management activities and commitments to minimise the negative social impacts and enhance the benefits to the communities and other stakeholders;
- ▶ Describe the mechanisms to monitor the impacts and adjust mitigation strategies;
- ▶ Identify and establish stakeholder partnerships to develop and implement the mitigation strategies throughout the life of the project;
- ▶ Determining a timeframe for the development and implementation of management strategies; and
- ▶ Provide guidance to Vista Gold's social performance activities.

1.3 Statutory Requirements

The former Northern Territory Minister for Natural Resources, Environment, and Heritage determined the Project requires formal assessment, under the NT *Environmental Assessment Act* 1982 (EA Act), at the level of an Environmental Impact Statement (EIS). The proposal has also been referred to the Australian Government under the *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) and has been determined to be a controlled action.

This SIMP has been prepared as part of the SIA to address Section 4.8 of the *Guidelines for Preparation of an Environmental Impact Statement: Mt Todd Gold Project, Katherine Region NT* (NRETAS, 2011):

- ▶ Conduct a Social Impact Assessment (SIA) to gauge community values and opinions on the potential impacts of the Mount Todd Gold Project in the region. The SIA should:
 - Identify key stakeholders, regional community structure and community vitality (including demography, health, education and social well-being, access to services and housing etc);
 - Include ongoing consultation with stakeholder groups to ensure the full range of community viewpoints is sought. The proponent is to outline its proposed methods for community consultation, including how it will respond to community feedback, questions and concerns In a formal, publicly accessible communication plan for the Project;
 - Estimate local employment including a breakdown of skills/trades required and specific opportunities for skills development;
 - Indicate where the workforce will be sourced and commute arrangements for non-local workforce personnel;



- Consider direct and indirect employment, training and business opportunities associated with the Project particularly in relation to Indigenous employment and training programs and how this would be managed and implemented;
- Outline accommodation requirements and arrangements for construction and operation activities and associated infrastructure and services required;
- Discuss the potential negative social impacts that could arise from the Project including the impacts of the Project on affected landowners and communities, recreational users, local health services, etc;
- Discuss the potential positive social benefits that could be realised from the Project;
- Provide information on impacts from additional road transport that may affect the community;
- Identify and discuss expected regional, Territory or national benefits and costs (including those that cannot be adequately described in monetary or physical terms e. g. effects on cultural and aesthetic amenity), in the short and long term; and
- Develop management controls to minimise the negative social impacts and optimise the positive opportunities.

1.4 Project Overview

Vista Gold proposes to re-establish and re-open the Mt Todd Gold Mine, located 55km northwest of Katherine and 250km south of Darwin. The proposed Project comprises:

- ▮ Extension of the existing Batman Pit;
- ▮ Expansion of the existing Waste Rock Dump;
- ▮ Existing Tailings Storage Facility (TSF1);
- ▮ Proposed new Tailing Storage Facility (TSF2);
- ▮ Raising of the Raw Water Dam and an increase in the area of inundation;
- ▮ Construction of haul roads and possible realignment of the existing access road;
- ▮ Rehabilitation of the existing heap leach pad (HLP); if residual HLP material is not processed through the new plant;
- ▮ Diversion of Horseshoe Creek and Stow Creek adjacent to TSF2 to provide flood protection;
- ▮ Construction and processing of low grade ore stockpiles;
- ▮ New water treatment plant;
- ▮ Clay borrow area;
- ▮ Process plant workshops, administration and plant site buildings;
- ▮ Chemical and reagent storage and handling facility;
- ▮ Anaerobic treatment wetlands; and
- ▮ Process plant construction.

The proposed operations involve open cut mining and processing of up to 17.8 million tonnes of ore per annum (Mtpa) to produce gold dore (unrefined gold). Gold dore would be shipped by secure containment to a refinery.



The Project will occur in three phases:

- | | |
|--|----------|
| ▸ Construction Phase | 2 years |
| ▸ Operations Phase | 13 years |
| Decommissioning and rehabilitation Phase | 4 years |

The construction and operations workforces will peak at approximately 450 and 350 personnel respectively.

1.5 Defining the Study Area

The study area provides a spatial boundary to the Project. Key considerations include the nature and scale of potential social impacts and their interaction with:

- Landholders who have land within the Project boundaries and/or within the immediate area of the Project site (Local Study Area);
- Nearby communities and service centres affected by the Project (Local Study Area); and
- Communities more distant from the immediate area of Project influence which may also be affected in terms of indirect or induced social impacts (Regional and Wider Study Area).

1.5.1 Local Study Area

The local study area includes those communities located in close proximity to the Project Site where the majority of direct social impacts will be experienced. This area is determined to be the Town of Katherine which is located approximately 50 km from the Project site. Katherine will be the main service centre for the supply of goods and services to the Project and a key location for housing of the operational workforce.

Figure 1 shows the local government administrative boundary of Katherine. This administrative boundary defines the Local Study Area for the purposes of the SIA Report (Appendix F) and this Plan.

1.5.2 Regional Study Area

The regional study area (Figure 2) is determined as the Lower Top-end Northern Territory (an area spatially defined by the Australian Bureau of Statistics Statistical Subdivision). This area includes the local government areas of Roper Gulf Shire and Victoria Daly Shire.

Katherine is a regional hub for the Lower Top-End Northern Territory, due to its strategic location within the Northern Territory. The Project will have an impact regionally through the supply of goods and services, provision of employment and generation of community interest and investment across the region.

The Regional Study Area also includes traditional land of the Jawoyn Aboriginal People. This land is referred to as Jawoyn Country.

1.5.3 Wider Study Area

The wider area for the Project includes the Northern Territory and Darwin.

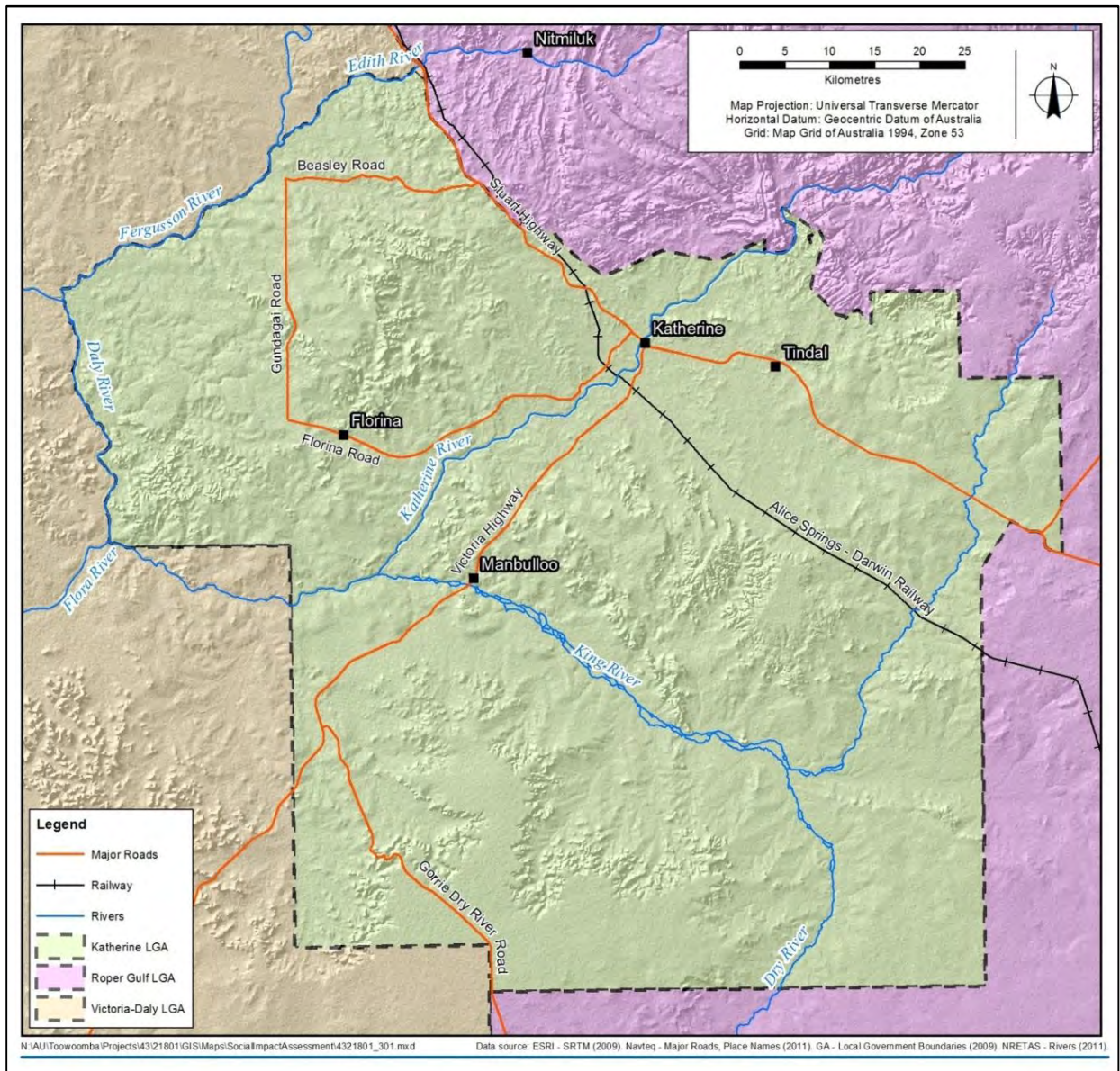


Figure 1 Local Study Area

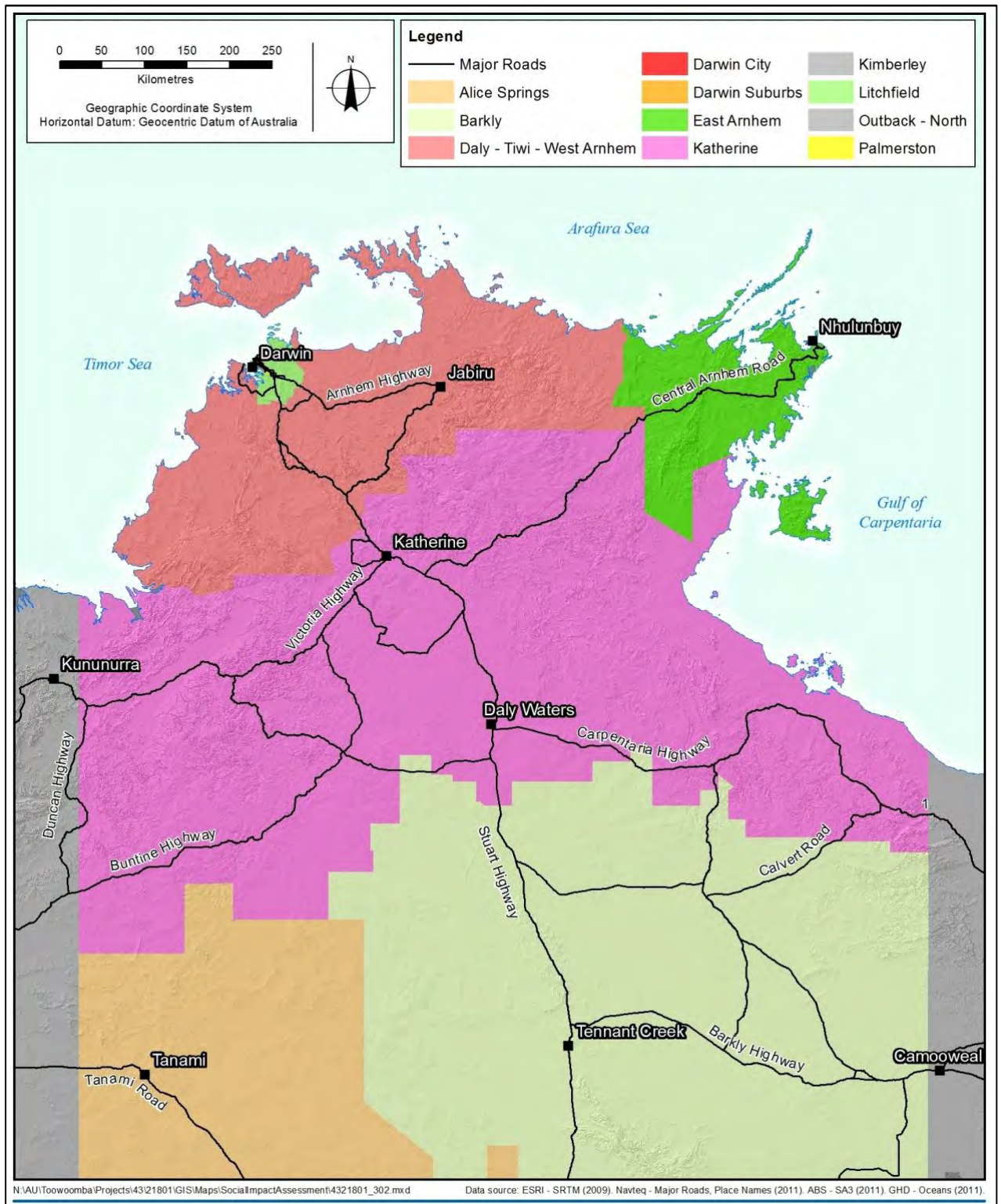


Figure 2 Regional Study Area



1.6 Social Impact Management Plan Methodology

The SIMP is based on rigorous and methodical foundations of the SIA process (SIA Report – Appendix F). The SIA process identified and prioritised impacts and identified a set of preliminary mitigations through consultation with the NT Government, local government, communities and service providers.

Specific engagement about the strategies identified in the SIMP was undertaken in the following:

- ▶ Vista Gold's technical teams, which included ongoing discussions to identify mitigation strategies and possible commitments; and
- ▶ Workshops and consultations with local government, key representative groups from the Katherine and regional community and service providers.

This SIMP is based on the outcomes of consultation undertaken to date and described in the Public Consultation Report (Appendix E). The SIMP is developed for a 10 year rolling period and should be reviewed on an annual basis.

1.7 Stakeholder Engagement for the SIA and SIMP

Table 1 outlines specific SIA activities and timing.

Table 1 Summary of SIA Activities

SIA Stage	Step	Month*	Task
Scoping	1	March 2011	SIA scope and methodology development Literature review of social impacts of mining Review key Project background information including the previous Mt Todd Gold Project Draft EIS in 1993
	2	April 2011	Identification of the Local, Regional and Wider Study Area
Baseline	3	April 2011	Community Information Stand at Katherine Show Conduct Community Views Survey (Katherine Show) Interviews with key Project stakeholders including Health Providers, Police and relevant NT Agencies and NGOs
	4	May/June 2011	Follow-up discussions with key Stakeholders
	5	September 2011	Community Information Sessions Katherine and Pine Creek Community Views Survey – Katherine Shopping Centre Interviews/Focus Groups with key Stakeholders including accommodation providers, RAAF Base Tindal, and Environment Council NT.
Identify impacts and opportunities	6	September 2011	Workshop with Mt Todd Rehabilitation Reference Group Workshop with the Katherine Chamber of Commerce
Develop mitigation, management and enhancement strategies	7	January 2012	Develop housing and accommodation strategy
	8	May 2012	Finalise Draft SIA Report and proposed SIMP.
	9	December 2012	Update Draft SIA Report to incorporate 2011 census data and reflect changes to the Project.

* These dates represent the starting time for each activity.



EIS consultation commenced in early 2011 and was timed to coincide with key EIS milestones. Stages 1 and 2 below have been completed. Stage 3 and 4 will be undertaken following the release of the Draft EIS for public comment:

- Stage 1: EIS commencement including the release of the Notice of Intent (NOI)
- Stage 2: Release of the draft Guidelines for the Mt Todd Gold Project for Public Comment
- Stage 3: Release of the Draft EIS
- Stage 4: Evaluation and EIS finalisation.

The sequencing of consultation activities is shown in Table 2.

Table 2 Sequencing of Consultation Activities

	Q1 2011	Q1 2011 – Q2 2013	Q2 2013 – Q3 2013	Q3 2013 – Q4 2013
STAGE	STAGE 1 Commencement of EIS process	STAGE 2 Draft EIS Development	STAGE 3 Public Exhibition of Draft EIS	STAGE 4 Evaluation and EIS Conclusion
Consultation Activities	Stakeholder identification Conduct preliminary issue/risk assessment Document review Prepare Stakeholder Consultation Plan Government Agency consultations Preliminary community and key stakeholder consultations	Community Information Sessions Distribution of project information materials (fact sheets) Project briefings and focus group meetings Manage project telephone hotline, email address and stakeholder database Respond to stakeholder comments in a timely manner Analyse stakeholder comments to inform Draft EIS investigations SIA consultation activities	Promote Public Exhibition Period including public displays and Community Information Sessions Coordinate and manage public submissions Analyse public submissions and draft responses	Close out activities Consultation evaluation
Ongoing stakeholder consultation and monitoring of feedback				
Regulatory Deliverables		Prepare Stakeholder Consultation Report and Social Impact Management Plan for Draft EIS	Prepare Community Feedback Report for Supplementary Report to the Draft EIS	



1.7.1 Structure of the SIMP

The SIMP includes the following:

- ▶ Introduction, purpose and methodology;
- ▶ Project summary;
- ▶ Summary of social impacts identified through the SIA process;
- ▶ Impact management strategies, including stakeholder engagement;
- ▶ Action plans for key impact areas; and
- ▶ Mechanisms for SIMP implementation, monitoring and reporting.



2. Project Summary

The Project is anticipated to run for 19 years with the construction workforce peaking at approximately 450 and an operational workforce of up to 350 personnel. Vista Gold has indicated a preference for a residential work force, and has a strong desire for their employment demographics to not consist of Fly-in / Fly-out (FIFO) or Drive-in / Drive-out (DIDO) employees. This objective was supported by Project Stakeholders in community consultation undertaken between April 2011 and September 2011.

2.1 Construction Phase

A contractor will be appointed to manage the construction phase. The appointed construction contractor will be responsible for determining the final workforce arrangement. For the purposes of this SIA the following construction workforce profile has been used for social impact assessment. This profile is based on current industry practice:

- ▶ The construction workforce will consist of a maximum of 450 and minimum of 270 workers;
- ▶ The majority of the construction workforce will be non-resident workers employed by the contractor. Whilst Vista Gold is committed to maximising local employment the temporary nature of the construction workforce means that it is likely that the majority of the workforce will be from outside Katherine. There is the potential for local people to access employment as part of the Project, but the majority of employment would be with the nominated contractor;
- ▶ Construction works will be normally carried out in 12 hour rotating shifts from approximately 6am to 6pm, 7 days per week;
- ▶ Night works may be required (for example for concrete pours during hotter months, or to catch up on schedule delays); and
- ▶ Administration and management personnel will work a standard 5 x 2 day roster.

The range of skills required during construction will include the following:

- ▶ Construction Manager;
- ▶ Specialist Managers;
- ▶ Specialist engineers;
- ▶ Tradespersons (e.g. carpenters, electricians, boiler makers);
- ▶ Civil construction;
- ▶ Machine operators;
- ▶ Mobile plant operators;
- ▶ Labourers; and
- ▶ Health, safety and environment personnel.

2.1.1 Construction Accommodation

Accommodation options to support the operational workforce were considered by Vista Gold and were considered in developing the following construction workforce accommodation strategy:



- ▶ Workers will be housed in a construction camp located within 25 km of the Project Site. The location of this camp has not yet been decided. Vista Gold, or its contractor, will be responsible for providing the contracted workers accommodation. Workers will not be allowed to make their own arrangements.
- ▶ A small number of Vista Gold managerial and administration staff may choose to reside locally in the Katherine area;
- ▶ Vista Gold employees (managerial) and other support workers not employed directly by the contractor may use other forms of temporary accommodation available in Katherine and Pine Creek (such as caravan parks, holiday rentals and motels). This is expected to be on a periodic and temporary basis; and
- ▶ Workers will be present on the Project site while on roster, and will return to the construction camp when off roster. Workers are also likely to visit Katherine and Pine Creek, on a limited basis, for shopping and entertainment purposes.

2.1.2 Recruitment

Construction will be undertaken by one or more contractors who will be responsible for:

- ▶ Recruitment of the workforce; and
- ▶ Training, including apprenticeships and trade certificates as well as job specific requirements such as health and safety.

Due to the limited duration, the construction workforce is likely to be engaged on a FIFO or DIDO basis. Vista Gold will specify a preference for local and regional recruitment which will ultimately depend on the availability of workers locally and regionally with appropriate skills as well as the contractor's existing workforce.

2.1.3 Transport

Transportation arrangements for the workforce will be the responsibility of the selected contractor(s). It is expected that:

- ▶ Workers residing within driving distance will drive to site at the start of each roster;
- ▶ Workers residing beyond driving distance, will fly to Darwin at the start of each roster period and will be transported to site by bus; and
- ▶ Workers residing in the construction camp will be transported to the site by bus for each shift.

There will be a small number of specialist trades people who will likely travel in their own vehicles to and from the mine site to bring specialist equipment. Similarly, a small number of managerial and advisory staff making occasional short-term visits to the site will travel to site in their own or rented vehicles.

2.2 Estimated Operation Workforce

An operational workforce of approximately 350 full-time workers is expected to be required. Vista Gold is committed to this workforce living and residing locally rather than operating on a FIFO or DIDO basis. The following operational workforce profile has been developed based on information provided by Vista Gold for impact assessment purposes:



- ▶ The required workforce of 350 full-time workers is estimated to comprise approximately 60 workers who are currently permanent residents of the local area and approximately 290 workers will need to be sourced from elsewhere;
- ▶ The life of mine operations is estimated to be 13 years followed by subsequent closure and rehabilitation activities; and
- ▶ Operation workforce numbers are expected to increase to a peak of 350 over the life of the mine and will then be scaled down significantly to include only workers associated with closure and rehabilitation.

Operational staff will include the following skills:

- ▶ General Manager and executive assistant;
- ▶ Commercial Manager, accountants and administrative assistants;
- ▶ Manager of mining and mining superintendents;
- ▶ Mining engineers, mine planners, geologists and surveyors;
- ▶ Manager of Plant Process, metallurgical superintendents, production superintendents and plant staff;
- ▶ Laboratory superintendent and lab staff;
- ▶ Maintenance Manager, Mechanical engineers and plant maintenance staff;
- ▶ Electrical Superintendents, electricians, instrumentation technicians;
- ▶ Truck drivers;
- ▶ Stationary plant operators;
- ▶ Mobile plant operators;
- ▶ Mining labourers; and
- ▶ Other specialist support roles including health, safety and environment personnel and Human Resources.

2.2.1 Operational Staff Accommodation

Vista Gold has undertaken a separate study into accommodation options to support the operational workforce. The results of this study have informed the operational workforce accommodation strategy assessed in this report.

Vista Gold has indicated their desire for a residential work force but that they do not wish to own houses. They prefer their operational staff to not include FIFO or DIDO workers and would prefer their people (and therefore housing) to be integrated into the community, with an emphasis on making the accommodation both attractive and comfortable. To support this intent, a number of options for accommodation were investigated including either a fully residential or fully FIFO / DIDO option. The final recommendation of a 'hybrid' accommodation solution consists of:

- ▶ 70 workers at the construction camp. This would accommodate mainly FIFO / DIDO personnel and provide an ability to quickly increase capacity and house overflow peak period personnel to meet mining needs or maintenance shut downs;



- ▶ A combination of both new and existing housing to support approximately 120 workers (family households with or without children). Workers would be accommodated in a mixture of:
 - New three and four bedroom houses located on existing vacant Katherine and region land;
 - Existing available (renovated if required) houses located in the Katherine and region land. Subject to real estate availability at the time of arrangement, a small contained development on Katherine land
- ▶ 100 workers located in a Katherine based single person accommodation facility

This would provide for the 290 additional Vista Gold employees that would require accommodation.

The ultimate accommodation strategy adopted will be developed following further discussions with local and territory government agencies. For the Closure and Rehabilitation stage, accommodation for the 40 workers (plus catering, cleaning, facilities management staff) would be accommodated in either the previous FIFO / DIDO accommodation, or in the Katherine single-person accommodation facility.

This 'hybrid' solution has been used as the basis for impact assessment in this report.

2.2.2 Recruitment

Vista Gold has specified a preference for a local residential workforce. The extent to which that this can be achieved will depend on the availability of workers with appropriate skills and their desire to live on a permanent basis in the Katherine area.

Vista Gold is aware of the local and regional recruitment/employment agencies and will consult with them in facilitating local and regional employment opportunities.

Vista Gold will develop appropriate human resource policies for the residential workforce, local and regional employment opportunities, equal opportunity and Aboriginal and Torres Strait Islander employment issues.

Recruitment will commence approximately 6 months before start of operations, and will be ongoing during operations as the workforce continues to scale up and down to replace workers who retire or resign.

Indigenous Employment Opportunities

- ▶ Vista Gold will develop an Indigenous employment strategy.
- ▶ Vista Gold has committed to work with the Jawoyn Association to engage as many Jawoyn as possible in the mine workforce.

2.2.3 Transport

Vista Gold will negotiate with an appropriate contractor to supply transportation services to the Project however it is expected that:

- ▶ Most of the workforce residing in Katherine will be bussed to site at the start of each shift. A small number will use private vehicles; and
- ▶ Workers residing further afield will travel to Katherine at the start of each rostered period by driving personal vehicles to Katherine.



There will be a small number of specialist trades people who will be required to travel in their own vehicles to and from the mine site. Similarly, a small number of managerial and advisory staff making occasional short-term visits to the site will travel to site in their own or rented vehicles.

2.2.4 Training Opportunities

The provision of training opportunities during construction will be the responsibility of the selected construction contractor(s).

For operational staff, Vista Gold will develop appropriate training and employment policies and targets. The training will be done in concert with both local and Territory government's agencies when possible.

2.3 Potential Contribution to Regional Development

Key potential regional development contributions of the Project will include opportunities for local businesses to service the Project by provision of goods and services. These opportunities will drive new employment, apprenticeships and training (long term career pathways) by which the local businesses will be able to attract and retain staff and people within the local community, leading to more sustainable businesses and communities.

2.4 Summary of Social Values

Refer to the Social Impact Assessment Report (Appendix F) for a summary of social values.

2.5 Key Social Issues in the Project Area

Key social issues identified during stakeholder consultations are summarised in Table 3. The Public Consultation Report (Appendix E) provides further detail on these.



Table 3 Potential Major Issues Identified During Public Consultation

Major Themes and Issues	COMMUNITY CONSULTATION			GOVERNMENT BRIEFINGS AND MEETINGS		
	Katherine Community Information Sessions	Pine Creek Community Information Sessions	Key Stakeholders	Local Government	NT Government	Community views survey
Workforce						
Concerns that Project will exacerbate existing skills shortfalls	✓	✓	✓	✓		
Potential for anti-social behaviours of workforce	✓		✓	✓	✓	
Difficulties stemming from typical mining rosters	✓	✓	✓	✓	✓	✓
Concerns regarding behaviour and integration of workforce	✓	✓	✓	✓	✓	✓
Concerns that local businesses will lose staff to Project	✓	✓	✓			✓
Health and well-being of workers				✓		✓
Lack of accommodation and housing	✓	✓	✓	✓	✓	✓
Need for additional housing to be built to accommodate workforce	✓	✓	✓	✓	✓	✓
Lack of land in Pine Creek		✓				
Preference for workers camp to be on or near Project Site	✓	✓	✓	✓	✓	✓
Concerns regarding Project driving up land and house prices	✓	✓	✓			✓
Opportunities for local business development	✓	✓	✓	✓	✓	✓
Concerns regarding the 'reliability' of the Project	✓	✓	✓	✓	✓	✓
Preference for Vista Gold to work with existing business in supply to the mine	✓	✓	✓	✓	✓	✓
Positive employment opportunities for local people	✓	✓	✓	✓	✓	✓
Concerns regarding regional/national labour skill shortages	✓	✓	✓			
Desire for more families to work at the mine	✓	✓	✓	✓	✓	✓
Training/ apprenticeship opportunities for local people, particularly youth (community capacity building)	✓	✓	✓	✓	✓	✓
Impact of mining rosters on community and family life	✓	✓	✓	✓	✓	
Use local training and traineeship programs and providers			✓	✓		✓
Concerns that existing health care services are stretched	✓		✓	✓	✓	
Would like to see Project investing in local community	✓	✓	✓	✓	✓	✓
Exacerbation of existing shortfalls (retail, entertainment, doctors etc.)	✓	✓	✓	✓	✓	



	COMMUNITY CONSULTATION			GOVERNMENT BRIEFINGS AND MEETINGS		
Major Themes and Issues	Katherine Community Information Sessions	Pine Creek Community Information Sessions	Key Stakeholders	Local Government	NT Government	Community views survey
Community Health, Safety and Well-being						
Establishing trust in the community is important	✓	✓	✓	✓	✓	
Alcohol issues are a big concern			✓	✓	✓	
Need for mine workers to integrate into the community	✓	✓	✓	✓	✓	✓
Concerns regarding environmental management of tailings dump and heap leach pad			✓	✓	✓	✓
Need for environmental monitoring and reporting of monitoring to community			✓	✓	✓	
Indigenous aspirations, values and resources						
Provision for Indigenous Employment Opportunities	✓	✓	✓	✓	✓	✓
Need for cultural awareness training on Project workforce	✓		✓			
Use of Indigenous mentors		✓	✓			
Traffic and Transport						
Condition of the Stuart Highway		✓	✓	✓	✓	
Increase in traffic on Edith falls road		✓	✓	✓	✓	
Transport of dangerous goods between Project and Darwin			✓		✓	
Environmental risks from transport such as spills etc.	✓	✓	✓	✓	✓	
Post-mining						
Loss of employment and economic stimulus			✓			✓



3. Social Impact Mitigations and Management

3.1 Social Impacts in the Project Area

Table 4 presents a summary of the potential social impacts associated with the Project as identified through the SIA. For detailed SIA refer the Social Impact Assessment Report (EIS Appendix F).

Table 4 Summary of Potential Key Social Impacts and Significance

Impact	Project Phase	Status of Impact	L/C Rating ¹	Impacted Party
Workforce(Requirement, Availability, Sourcing, Shift Management, Cumulative				
Lack of social integration of workforce	Construction and operation	Negative	Low	Local community
Increased incidence of anti-social behaviour arising	Construction and operation	Negative	Low	Local community
Exacerbation of existing labour and skills shortfalls	Construction and operation	Negative	Low	Local community
Cross-over employment impacts	Construction and operation	Negative	Low	Local community
Decline in worker well-being associated with a FIFO or DIDO workforce	Construction and operation	Negative	Medium	Local community
Increase in worker life-style opportunities associated with a FIFO workforce	Construction and operation	Positive	Medium	Local community
Fatigue related risk of accidents – related issues associated with worker travel between place of work and home	Construction and operation	Positive	Medium	Local community
Housing and accommodation				
Increase in demand for short-term accommodation	Construction and operation	Negative	Medium	Local community
Increase in demand for long-term accommodation	Construction and operation	Positive and negative	Medium	Local community
Economic and employment (Direct and indirect)				
Increase in business opportunities and regional spend	Construction and operation	Positive	High	Local and regional businesses
Local inflationary impacts	Construction and operation	Positive and negative	Low	Local community
Increased employment opportunities	Construction and operation	Positive	High	Local community

¹ Likelihood/Consequence Rating



Impact	Project Phase	Status of Impact	L/C Rating	Impacted Party
Traffic and Transport				
Increased traffic and transport on Stuart Highway	Construction and operation	Negative	Low	Road users
Increased risk of spill of hazardous substances	Construction and operation	Negative	Low	Local and regional community
Community Infrastructure and Services				
Increased demand for community infrastructure and utilities leading to local/regional shortfalls	Construction and operation	Negative and Positive	Low	Local community
Exacerbation of existing health shortfalls	Construction and operation	Negative	Low	Local community
Impacts on Community Values				
Benefits to local/regional and national community from rehabilitation of existing contaminated mine site	Construction and operation	Positive	Medium	Local community
Decrease in community, health, safety and wellbeing (whether real or perceived)	Construction and operation	Negative	Low	Local community
Increase in community concerns regarding water quality and risk of environmental contamination	Construction and operation	Negative	Low	Local community
Negative impacts on vulnerable groups such as women and Indigenous groups	Construction and operation	Negative	Medium	Local community Vulnerable groups
Land Use and Property Impacts				
Impacts on downstream and near neighbours	Construction and operation	Negative	Low	Near neighbours
Indigenous resources, values and aspirations				
Indigenous employment and business opportunities	Construction and operation	Positive	High	Jawoyn Association Indigenous groups and individuals
Potential for exacerbation of existing community conflict	Construction and operation	Negative	Medium	Indigenous groups and local community
Traditional Owner cultural heritage and resources	Construction and operation	Negative	Medium	Indigenous groups and individuals



3.2 Impact Management Strategies

Social impact management strategies to address identified potential social impacts are described below.

3.2.1 Project Design Changes

The social impact assessment has informed Project design decisions in relation to the following matters:

- ▶ Selection of appropriate contractors based on their ability and commitment to the social impact management strategies detailed in this section;
- ▶ Development of the proposed housing and accommodation strategy for the Project including the decision to locate construction work camps away from Katherine and Pine Creek;
- ▶ Development and implementation of Occupational Health and Safety Policies for construction and operation;
- ▶ Development of a Construction Environmental Management Plan to address noise and dust and other potential environmental impacts associated with construction and operations;
- ▶ Development of a Traffic Management Plan to address:
 - Potential safety issues associated with construction related traffic
 - Management of traffic to avoid delays to existing traffic
- ▶ Preparation of a Site Safety Plan that will include preventative measures for a range of on and off-site incidents that might impact on community health and safety; and
- ▶ Provision of an Emergency Response Plan that will include measures to address any emergency incidents that might involve members of the public.

The following section provides additional information on proposed social impact management and mitigations strategies to be implemented by Vista Gold or its contractors.

3.2.2 Workforce Management Strategy

A Workforce management strategy should be developed for both construction and operations phases of the Project. It should include:

- ▶ Workforce sourcing;
- ▶ A workforce Code of Conduct, incorporating behavioural standards, linked to employee contract conditions. Clear consequences for workers not adhering to behavioural standards will be set out, including dismissal for serious non-conformances or repeated offences;
- ▶ Workforce health, safety and wellbeing policies including strategies to manage worker fatigue associated with travel and well-being of workers within accommodation camps;
- ▶ Adopting an industry Code of Conduct as part of regular tool-box meetings for the construction and operation workforce where workers are reminded of the Code and consequences of not meeting it;
- ▶ Employee induction (covering aspects of worker behaviour, company expectations, community perceptions of behaviour etc.); and
- ▶ Occupational health and safety for employees, contractors and sub-contractors.



3.2.3 Housing and Accommodation

The Project housing and accommodation strategy will be further developed in consultation with the NT Government and key regional stakeholders such as the Local Council.

3.2.4 Employment, education and training

- ▶ Develop and implement an Industry Participation Plan in accordance with the requirements of the Northern Territory Government for major projects;
- ▶ This plan will be based on preferentially sourcing people, goods and services from within the Katherine Region and the Northern Territory to build business, industry and community capability;
- ▶ Use local (Katherine Region) businesses to fill contract positions (e.g. catering, cleaning, fuel supply, light vehicle maintenance etc.) provided contractors are competitive and appropriately skilled; and
- ▶ Work with local training providers to ensure that local training programs will give unskilled people the skills and training necessary to gain employment in the Project.

3.2.5 Community and Stakeholder Engagement

The following strategies relating to community and stakeholder engagement should be undertaken:

- ▶ Develop a Community and Stakeholder Engagement Plan detailing mechanisms for ongoing consultation and feedback on the Project including establishing a community reference group;
- ▶ Continue to work with key Project stakeholders including the NT Government, Katherine Town Council, Victoria Daly Shire Council and Roper Gulf Shire Council, the Jawoyn Association and others as required to minimise social issues;
- ▶ Continue to develop and operate the Mt Todd Project Website and toll-free number to provide a point of contact for interested members of the community to obtain information on the Project;
- ▶ Establish an incident/action management system to provide a transparent and equitable mechanism for responding to any community suggestions or concerns; and
- ▶ Establish a Community and Stakeholder Relations Role for the Project prior to Project construction.

3.2.6 Vista Gold Sponsorship Program

- ▶ Establish a community sponsorship fund to contribute to community development initiatives. This should include the development of criteria for sponsorship and a clear and transparent selection process advertised through the Project web page.

3.2.7 Near Neighbour Program

- ▶ Develop a 'Near Neighbour' program to be implemented with adjacent and downstream landholders. This will be a regular system of contact with landholders to monitor any changes on properties and the road network and implement mitigation measures as agreed. Landholders will have a single point of contact with a structured communication system in place to ensure a quick and efficient response to any issues that may arise. Mitigation measures will be implemented within agreed timeframes; and
- ▶ The 'Near Neighbour' program will be developed in consultation with landholders, identifying the respective roles and responsibilities of the Proponent and landholders.



3.2.8 Industry Participation Plan

- ▶ Prepare an Industry Participation Plan for the Project. This plan will be prepared consistent with the template provided by the Northern Territory Government and guidance from the Northern Territory Industry Capability Network.
- ▶ The plan should include the following matters:-
 - How services, suppliers and labour will be utilised;
 - How the Project will enhance local business and industry capability;
 - What the regional economic benefits will be;
 - Opportunities for Indigenous participation;
 - Communication with local industry; and
 - How success will be reported on.

3.2.9 Jawoyn Partnership Agreement

- ▶ As part of the partnership agreement with the Jawoyn Association continue to work with the Jawoyn Traditional Owners towards the achievement of economic and employment aspirations of the Jawoyn people; and
- ▶ Establish clear mechanisms for ongoing collaboration, communication and reporting between Vista Gold and the Jawoyn Association including mechanisms for any dispute resolution.

3.3 Summary of Impacts and Key Mitigation Strategies

To understand the linkages between the various potential social impacts identified and the mitigation strategies developed to address those impacts, an 'impact and mitigations matrix' has been developed (Table 5). The purpose of this matrix is to illustrate how impacts will be addressed using a number of different mitigation strategies.



Table 5 Potential Impacts and Key Mitigations Matrix

Aspect	Potential impacts and opportunities	Mitigation and Management Strategies									
		Project Design	Community and Stakeholder Engagement	Workforce Management Strategy	Housing and Accommodation Strategy	Industry Participation Plan	Vista Gold Sponsorship	EIS Technical Environmental Management	Jawoyn Partnership Agreement	Monitoring Program	Near Neighbour Program
Workforce	Lack of social integration of workforce		√	√	√		√			√	
	Increased incidence of anti-social behaviour		√	√	√		√			√	
	Exacerbation of existing labour and skills shortages		√	√		√				√	
	Cross-over employment impacts	√				√				√	
	Decline in worker well-being	√		√	√					√	
	Fatigue-related impacts associated with worker travel			√				√		√	
Housing and accommodation	Increase in demand for short-term accommodation ²	√	√		√					√	
	Increase in demand for long-term accommodation	√		√	√					√	
	Reduction in affordability of rental housing	√		√	√					√	
Economic and Employment	Increase in business opportunities and local/regional spend	√			√	√				√	
	Potential for local inflationary impacts ³					√				√	
	Reduced focus on traditional customer base		√			√				√	
	Increased employment opportunities	√				√				√	
Community infrastructure and services	Increased demand for community infrastructure and utilities leading to local/regional shortfalls	√			√			√		√	
	Exacerbation of existing health shortfalls			√	√			√		√	

² Only negative elements assessed

³ Positive aspects of this impact are considered under increased regional/local spend



Aspect	Potential impacts and opportunities	Mitigation and Management Strategies									
		Project Design	Community and Stakeholder Engagement	Workforce Management Strategy	Housing and Accommodation Strategy	Industry Participation Plan	Vista Gold Sponsorship	EIS Technical Environmental Management	Jawoyn Partnership Agreement	Monitoring Program	Near Neighbour Program
Community health, safety and wellbeing	Benefits to local/region and national community from rehabilitation of existing mine site		√					√		√	
	Decrease in community health, safety and wellbeing (whether real or perceived)	√	√		√			√		√	
	Negative impacts on vulnerable groups within community		√	√	√					√	
	Increase in community concerns regarding water quality and risk of environmental contamination		√	√				√		√	
Property and land use impacts	Negative impacts arising from a decrease in use and enjoyment of land										√
Indigenous resources, values and aspirations	Indigenous employment and business opportunities		√						√	√	
	Potential for exacerbation of existing community conflicts		√						√	√	
	Traditional Owner cultural heritage and resources									√	
Traffic and Transport	Increased traffic and transport on Stuart Highway									√	
	Increased risk of spill of hazardous substances									√	



4. Action Plans

Based on the impact mitigations and commitments outlined in Chapter 3, specific action plans have been developed in this SIMP. The action plans include specific actions to be undertaken to manage the impacts, timing of actions, performance indicators and stakeholders involved in the management of the actions. The action plans have been prepared for the following social impact mitigation themes:

- Community Values and Change;
- Local Industry Participation, Employment and Training;
- Housing and Accommodation;
- EIS Management Plan (Roads, Traffic and Safety);
- Workforce Management Strategy;
- Near Neighbour Program; and
- Social Infrastructure and Services.

4.1.1 Community Values and Change

Actions	Timeframe	Performance Indicators	Stakeholders/Partners
Establish a community and stakeholder relations role for the Project or assign the responsibility for this task to an existing role	Current – Ongoing	Establishment of role	NT Government Key stakeholder groups Local Council
Establish a community reference group (similar to the Mt Todd Rehabilitation Reference Group) that can provide advice to Vista Gold on the Project from a community perspective	Current – Ongoing	Establishment of mechanism	NT Government Key Stakeholder groups Local Council
Develop a community and stakeholder engagement plan for keeping the community informed regarding the project and providing appropriate feedback and consultation	Current – Ongoing	Community and stakeholder engagement plan in place	NT Government Local Council Local and regional community
Establish an incident/action register for tracking and appropriately responding to any community issues raised	Ongoing	Number of valid contacts made	Local community



4.1.2 Local Industry Participation, Employment and Training Action Plan

Actions	Timeframe	Performance Indicators	Stakeholders/Partners
Prepare an industry participation plan for the Project consistent with the NT Government Template	Q4 2013	Local employment plan and training plan in place No. and type of employment opportunities available	NT Government Local employment agencies Indigenous organisations
Work with local training providers to ensure that local training programs will give unskilled people opportunity to gain employment in the Project	Ongoing	Local employment plan and training plan in place	Local employment agencies including Indigenous employment agencies

4.1.3 Housing and Accommodation

Actions	Timeframe	Performance Indicators	Stakeholders/Partners
Further develop the preferred housing and accommodation strategy with key stakeholders	Current – Ongoing	Final housing and accommodation strategy	NT Government Local Council

4.1.4 EIS Management Plans (Traffic, Emergency Response and Site Safety)

Actions	Timeframe	Performance Indicators	Stakeholders/Partners
Develop traffic management plans for construction and operation	Q4 2013	Traffic management plans in place prior to construction and operations	NT Government
Develop Site Safety Management Plan	Q4 2013	Site safety management plan in place	NT Government

4.1.5 Workforce Management Strategy

Actions	Timeframe	Performance Indicators	Stakeholders/Partners
Develop an overall workforce management strategy including workforce sources, management, health and wellbeing and appropriate behaviour	Q4 2013	Workforce Management Strategy and other workforce policies in place	NT Government



4.1.6 Near Neighbour Program

Actions	Timeframe	Performance Indicators	Stakeholders/Partners
Develop and implement a near neighbour program with adjacent and downstream landholders to maintain a regular system of contact with landholders to monitor any concerns or issues that might arise	Q4 2013	Near neighbour program developed and implemented Communications mechanism established with contact details for all near neighbours Complaints and responses	Landholders Contractors Local council

4.1.7 Indigenous resources, values and aspirations

Actions	Timeframe	Performance Indicators	Stakeholders/Partners
Continue to work in partnership with the Jawoyn Association under the partnership agreement	Ongoing	Implementation of Jawoyn Partnership Agreement	Jawoyn Association
Establish clear mechanisms for ongoing consultation and communication with Indigenous groups potentially affected by the Project	Current and ongoing	Indigenous consultation strategy developed as part of the broader public consultation and engagement strategy	Indigenous groups
Implement and monitor a Cultural Heritage Management Plan	Ongoing	Monitoring and implementation of Cultural Heritage Management Plan	Traditional Owners

4.1.8 Social Infrastructure and Services Management

Actions	Timeframe	Performance Indicators	Stakeholders/Partners
Emergency Response Plan developed which will include provision of onsite paramedic personnel's, ambulance, fire fighting systems and equipment, induction programs for all users of the site, security services and Police presence.	Current – ongoing through the life of this SIMP	Additional demands placed on the existing emergency response systems in the region	NT Government Emergency Services
Develop and implement a Vista Gold Sponsorship program	Current - ongoing	No. of community initiatives funded Value of the community development fund	Local community organisations



5. SIMP Implementation, Monitoring and Reporting

5.1 SIMP Implementation

To ensure that that Project is delivered in line with the commitments in the EIS, an overall Project Commitments Register will be developed and maintained, which will form the basis of monitoring for compliance with the EIS.

The various impact management initiatives detailed in the SIMP will be led by Vista Gold in partnership and collaboration with various partners as outlined in the management strategies.

The SIMP should be reviewed on an annual basis, with a rolling life of 10 years. The annual reviews should be based on stakeholder engagement and feedback enabled through the various stakeholder engagement and reporting processes.

5.2 Monitoring and Reporting

A monitoring and reporting mechanism is critical to ensuring that the social impacts are identified and measured and the mitigations are implemented. A Monitoring Program should be developed in consultation with the key stakeholders during the finalisation of the SIMP. The Action Plans outline preliminary performance and monitoring indicators for each of the mitigation strategies.

The key objectives of the monitoring program will be to demonstrate:

- ▶ Compliance with the EIS and SIMP commitments;
- ▶ Track the identified impacts and the delivery of their mitigation strategies;
- ▶ Identify new impacts arising from changing conditions and develop responses; and
- ▶ Enable regular stakeholder contact and feedback.

To facilitate the monitoring process various reporting mechanisms should be put in place. The reporting mechanisms include the following:

- ▶ As part of being open and transparent as well as accountable within the community, a quarterly community newsletter will be prepared and distributed to the community and stakeholders. In addition to reporting on activities at the mine and upcoming event it will also provide a snapshot of the key performance indicators as they relate to mine operations with the intension of providing up-to-date, realistic information on forecasts for mining operations, workforce (including contractors) and project changes;
- ▶ Internal reporting within Vista Gold's – Annual Corporate Reporting; and
- ▶ Internal reporting within Vista Gold – including monthly reporting on the grievance and dispute resolution mechanism.



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