



# CHAPTER 5.7

## SOCIAL AND ECONOMIC

## 5.7 Social and economic

### 5.7.1 Overview

An assessment of the social and economic impacts and benefits of the Exploratory Works was carried out and is supported by the following technical assessments:

- Social assessment prepared by EMM Consulting (see Appendix R);
- Economics assessment prepared by Gillespie Economics Pty Ltd (see Appendix S); and
- Recreational Users assessment prepared by TRC Tourism Pty Ltd (see Appendix C of Appendix R).

Social impact assessment is an approach of assessing and predicting the likely consequences of a project, in social terms and involves understanding impacts from the perspectives of those involved in a personal, community, social or cultural sense. For the Exploratory Works, an understanding of these perspectives was informed through stakeholder profiling and mapping, socio-economic analysis of resident population, community consultation, and face-to-face and telephone interviews with local service providers (also referred to as service level providers or SLPs) and recreational users of KNP and Talbingo Reservoir.

The social assessment was prepared in line with *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects* (The International Association for Impact Assessment 2015), *International Principles for Social Impact Assessment* (Vanclay 2003), and *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects* (Vanclay 2015).

To assess the socio-economic benefits and costs of the project in monetary terms, the Economics Assessment used two economic methods:

- a cost benefit analysis (CBA) which compares the costs and benefits of a project to the community (at a national level) and evaluates whether the economic welfare of the community is, overall, improved by a project; and
- an economic activity analysis of the direct and indirect economic activity provided by the project, including labour, non-labour project expenditure, and environmental and social impacts on the local community.

The Recreational Users assessment was prepared in reference to the KNP PoM and in consultation with NPWS. It details the recreational uses of the wider KNP and Talbingo Reservoir, and areas to be impacted by the Exploratory Works. Where the potential for impacts to recreational uses are considered to occur, management measures have been recommended to mitigate these impacts.

## 5.7.2 Existing environment

### i Socio-economic profile

The social area of influence (or study area) identified for Exploratory Works includes the KNP and the surrounding towns and communities that have the potential to experience change during the works. The socio-economic profile of the study area was determined from Australian Bureau of Statistics (ABS) demographic data collected for the Snowy Valleys and Snowy Monaro Regional LGAs. Key profile features are shown in Figure 5.12.

The KNP is recognised as a nationally significant place for outdoor recreation. There are few other places in Australia that offer the opportunity for snow play and snow sports with extensive and diverse natural and cultural features and landscapes. KNP also has significant cultural heritage, which includes evidence of Aboriginal and European phases of historic land use.

Recreational use of the northern end of KNP is centred on a number of geographical precincts, each of which has different uses and users. Recreational activities undertaken in the northern area include drive touring, picnicking, camping, walking, horse riding, cross country skiing, downhill skiing, snowboarding and snow play, cycling, climbing and abseiling, caving, canoeing and rafting, boating and fishing. The recreational areas directly affected by Exploratory Works include Lobs Hole and Talbingo Reservoir, though some other sites might be indirectly impacted by displacement of visitors from these areas. The locations of recreational uses within KNP, relative to the project, are shown in Figure 5.13.

As discussed earlier in Chapter 3, the KNP PoM designates most of the camping and visitor use areas in the northern part of KNP as the 'Minor Road Corridors' zone. This zone aims to provide opportunities for 'soft' adventures in which 'visitors can experience a sense of isolation, and appreciate the values of the park, in the presence of relatively small numbers of people and in settings with low to moderate levels of on-site management presence'. A few roads in the 'Minor Road Corridors' zone are intended to provide a more challenging drive touring experience and include Lobs Hole Ravine Road north and south of Lobs Hole. The relatively difficult level of access to this precinct enhances the sense of isolation and remoteness of the Ravine campground.

## 5.7.3 Assessment of impacts

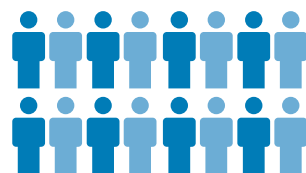
### i Workforce impacts

Up to 201 workers would be employed over the life of Exploratory Works with the entire workforce staying within the accommodation camp while on swing. Prior to the accommodation camp being constructed the workforce will be accommodated in existing Snowy Hydro accommodation at Cabramurra and Talbingo. It is expected that the majority of the workforce would be FIFO and DIDO; with the remainder of the workforce sourced from the local area and region. It has been assumed that some of the workers are likely to relocate their families to the local area.

Given the above, only a small population increase (up to 40 people) in the local area is assumed to occur under the Exploratory Works. For assessment of workforce impacts it has been conservatively assumed that all new people move to one LGA only. The maximum population increase is 0.2% for either the Snowy Monaro Regional or Snowy Valleys LGA which would have negligible social impacts on the local area.

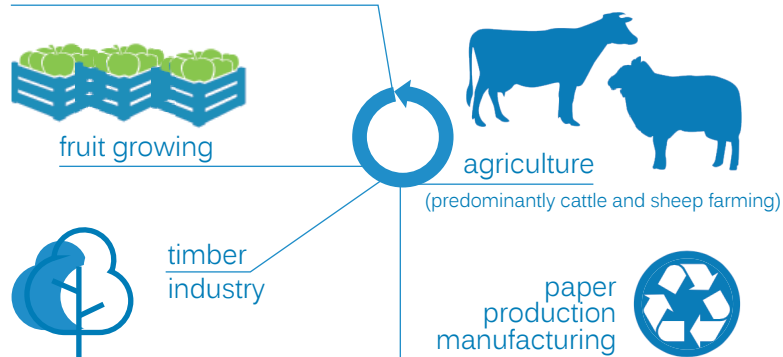
## Snowy Valleys LGA

Land size –  
**8,960 km<sup>2</sup>**



Population –  
**14,329**  
(relatively static since 2006)

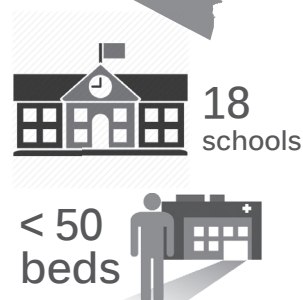
### Main sectors of employment –



Unemployment – **4.38%**

ABS socio-economic ranking below average - one of the most disadvantaged LGAs in NSW

In 2013, 26% of households did not have access to the internet



### Small regional hospitals

No medical centres in Adaminaby, Talbingo and Providence Portal



Coach network connects the major towns of Cooma, Tumut and Canberra



Snowy Mountains Airport

Lower proportion of occupied dwellings in Adaminaby and Talbingo



Sale properties increase in Cooma and Tumut since the announcement of Snowy 2.0

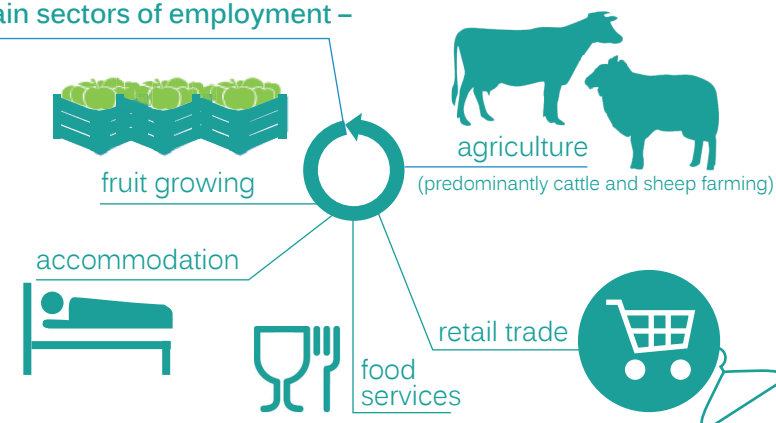
## Snowy Monaro Regional LGA

Land size –  
**15,160 km<sup>2</sup>**



Population –  
**20,617** (6,588)  
(slight growth since 2006) reside in Cooma

### Main sectors of employment –



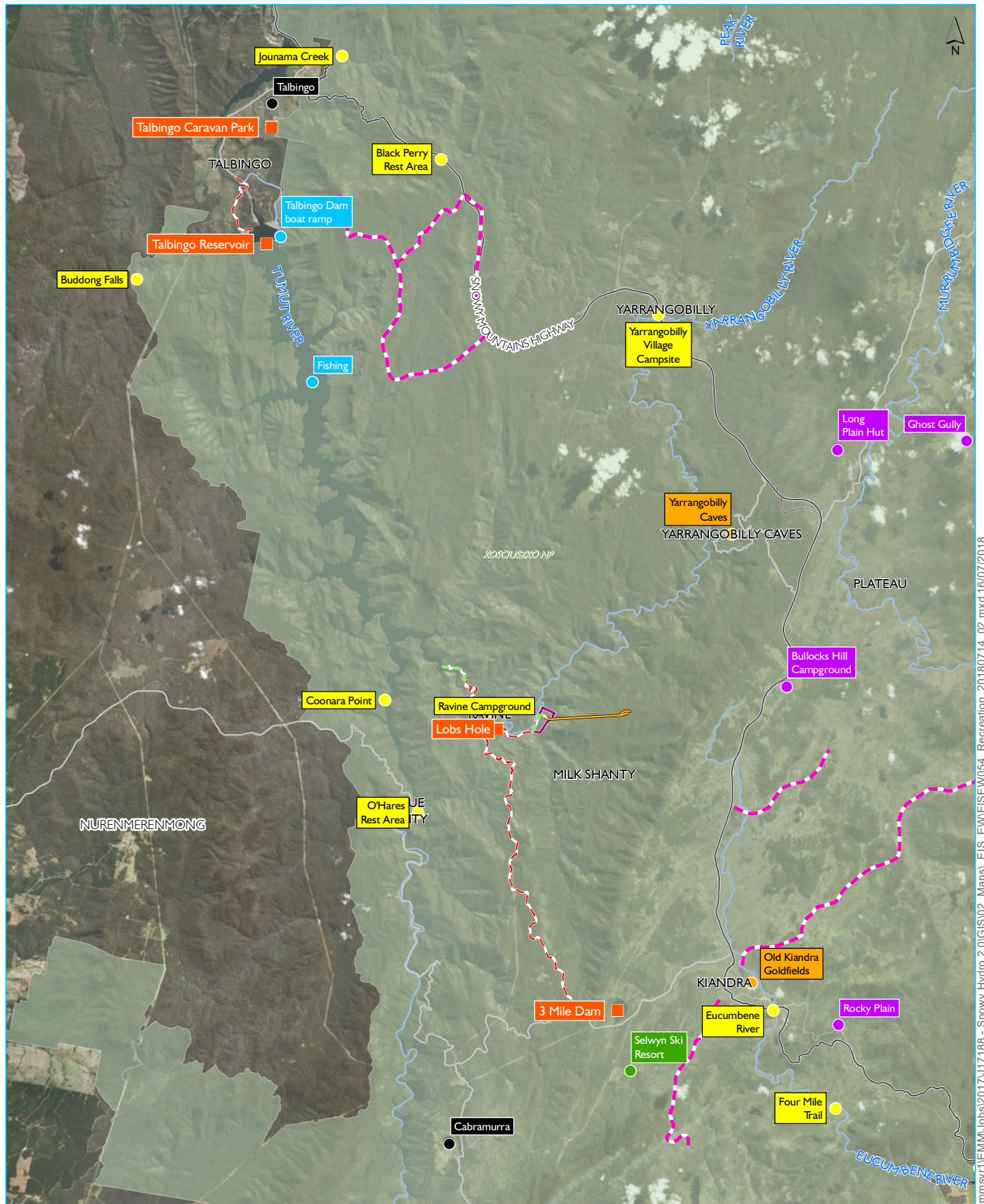
Unemployment – **3.33%**

ABS socio-economic ranking above NSW average

In 2013, 19.4% of households did not have access to the internet







Source: EMM (2018); DFSI (2017); SMEC (2018)

0 2 4 km  
GDA 1994 MGA Zone 55

## KEY

- |                            |                                    |                          |
|----------------------------|------------------------------------|--------------------------|
| TRC survey locations       | Township                           | Local road or track      |
| Recreational use areas     | Mountain bike trail                | Major watercourse        |
| Camping                    | Access road upgrade                | Kosciuszko National Park |
| Camping - horses permitted | Access road extension              |                          |
| Fishing and boating        | Exploration tunnel portal envelope |                          |
| Place of interest          | Exploratory tunnel                 |                          |
| Ski resort                 | Main road                          |                          |

## Recreational uses in KNP area

Snowy 2.0  
Environmental Impact Statement  
Exploratory Works  
Figure 5.13

The Exploratory Works is unlikely to impact long-term housing as there is sufficient capacity to cater for the demand generated by the workers that choose to relocate to the local area.

It is expected that a percentage of the off-swing employees are likely to stay within the local region and take advantage of the recreational opportunities the region provides. Given that accommodation would not be provided at the accommodation camp for those choosing to stay between swings, these workers would need to utilise short-term accommodation within the local area, including camping within the KNP. Data on short-term accommodation in the Snowy Mountains Tourist Region indicates that there is sufficient capacity within the local region to accommodate this type of demand.

Although the analysis of data assessed impacts on long-term housing and short-term accommodation to be low, it was concluded that stakeholders perceived impacts would be higher than that assessed. Mitigation measures have, therefore, been recommended to address the likely perceived impacts.

## ii Service level provider impacts

The Exploratory Works has potential to impact SLPs, such as community services, facilities and infrastructure particularly in Cooma and Tumut, via the influx of the workforce to the local area. The social impacts on SLPs as a result of these population changes are predicted to be low as there will be no measurable impacts on the capacity of community services and infrastructure. This is based on the negligible population changes and the existing service and infrastructure capacity of SLPs within the local area.

## iii Economic costs and benefits

The potential economic costs and benefits of Snowy 2.0 are summarised in Table 5.17. Whilst Exploratory Works is a separate application to Snowy 2.0, Exploratory Works elements may be utilised for Snowy 2.0, should it proceed, and hence is associated with some of the potential cost and benefits. The market benefits identified for Snowy 2.0 do not arise from the Exploratory Works. However, in economic efficiency terms, Exploratory Works play an important role in the design of Snowy 2.0 in particular the precise location, design and construction method for the underground power station.

**Table 5.17** Potential economic costs and benefits of Snowy 2.0

Category	Costs	Benefits
Market benefits	Capital and operating costs of Snowy 2.0	Savings in generator fuel and operating costs More orderly use of thermal generation Reduced capital for dispatchable capacity Increased generation inertia and greater system reliability Availability of spinning generation for the provision of spinning reserve Option value and flexibility Extend life of existing generators through more stable operations

**Table 5.17**      **Potential economic costs and benefits of Snowy 2.0**

Category	Costs	Benefits
Potential environmental, social and cultural impacts	Surface and groundwater impacts	Reduction in greenhouse gas emissions in energy market
	Air quality impacts	Efficient use of existing hydro-power generation resources, including maximising use of existing dams for pumped hydro capacity
	Noise and vibration impacts	
	Ecology and biodiversity impacts	
	Aboriginal heritage impacts	
	Historic heritage impacts	
	Traffic and transport impacts	
	Greenhouse gas emissions	
	Visual amenity impacts	
	Recreation impacts	

Exploratory Works is, in particular, associated with some of the Snowy 2.0 capital costs (\$325 million) and some of the environmental, social and cultural impacts. These potential environmental, social and cultural impacts of Exploratory Works are assessed in the EIS and discussed below in economic terms.

Economic benefits of undertaking Exploratory Works relate to reduced direct construction costs, reduced delays, and avoiding substantial investment in a technically infeasible project with the associated impacts.

To achieve these benefits of Exploratory Works some environment, social and cultural impacts will be incurred which are detailed in relevant sections of this EIS.

#### iv      Economic activity analysis

Exploratory Works is estimated to cost \$325 million over a three year period with a large proportion (\$171 million) spent in 2020. Expenditure from Exploratory Works that can potentially be captured by the region arise from non-labour inputs and expenditure of wages by labour.

Non-labour inputs to Exploratory Works would include, but are not limited to, excavation and earthworks, buildings and sheds, reinforced concrete pipes, plant and equipment, concrete manufacturing, haulage and engineering services. It is assumed that there would be limited scope for the local supply of the major non-labour inputs to the project. Notwithstanding, some small regional businesses may be able to supply some of the minor non-labour inputs to production.

The additional wages that initially accrue to the region were estimated to be \$6.65 million from 44 jobs that are either employees sourced from the region (23), employees that migrate to the region with their families (seven), or employees that stay in the region temporarily and spend a percentage of their income (14). The economic impact of the additional wage expenditure in the regional economy over the three year period would, therefore, be:

- \$2.92 million in annual direct and indirect regional output;
- \$1.72 million in annual direct and indirect value-added;
- \$0.65 million in annual direct and indirect income; and
- 14 direct and indirect jobs.

The direct and indirect jobs (from wage expenditures) to existing residents in the local economy are, therefore, estimated at 37. Any additional local spending creates opportunities for businesses to expand and/or establish within the region so as to service the increased local demand. The opportunities that arise from additional local spending associated with wages are often more available to local regional businesses than are opportunities for providing non-labour inputs to major projects.

#### v Recreational users

Potential impacts to recreation users resulting from Exploratory Works include the following:

- the closure of Lobs Hole Ravine Road and the Ravine campground within KNP – restricting access to Lobs Hole for the duration of the Exploratory Works will impact current and potential users of the road and site including campers, drive tourers, fishers and those who visit the area with an interest in its heritage;
- barge operations on Talbingo Reservoir – the proposed barge access infrastructure and the operation of the barge on Talbingo Reservoir has the potential to impact swimmers, water skiers, fishers and boat and other water craft users on the reservoir; and
- traffic movements – increased traffic along the primary transport routes.

The residual impact on recreational users is likely to be low given that:

- direct impacts will be temporary and will affect a relatively low number of users of KNP;
- most long term impacts, once mitigation strategies are implemented, will be low;
- some long term impacts will be positive such as improved access and facilities to/at Lobs Hole and at Talbingo Reservoir; and
- displacement, both temporary and long term, is not expected to occur at high levels and will be to sites that generally have the capacity to absorb some extra visitation.

#### 5.7.4 Mitigation measures

A summary of the mitigation and management measures that would be implemented to avoid and minimise socio-economic impacts is provided in Table 5.18.

**Table 5.18** Summary of mitigation measures

Impacts/risks	Reference4#	Measures
Impacts to long-term housing demand	SEC01	<p>Develop and implement a program to track and monitor the demand for long-term housing in the local region by regularly consulting with workers, local real estate agents and the Snowy Monaro Regional and Snowy Valleys councils.</p> <p>The monitoring program will be prepared before construction starts and will be reviewed periodically to capture any relevant changes in the project and in the community. Monitoring would be undertaken every three months starting from the commencement of construction.</p> <p>The results of the consultation would be reported back to DPE and the councils.</p>



**Table 5.18**      **Summary of mitigation measures**

Impacts/risks	Reference4#	Measures
Costs incurred to NPWS to implement recreational user impact mitigation measures	SEC02	Snowy Hydro propose to enter into a heads of agreement with NPWS which will form the basis of an agreement between the two parties which will broadly set out the measures proposed to mitigate impacts to recreational users of KNP, and nominate the monetary contributions required to fund the mitigation and management measures.
Higher levels of visitation to Lobs Hole post Exploratory Works due to improved access	SEC03	<p>Master plan to be developed before the completion of works at Lobs Hole. Master plan to consider issues such as vehicle access and potential vehicle conflict, changing user dynamics and use of the area, planning for future camping groups and types, provision of amenities, weed and feral animal control.</p> <p>Work on the rehabilitation of the site and the installation of visitor infrastructure would commence before the conclusion of the Exploratory Works (or Snowy 2.0) to enable visitor use of the area to recommence as soon as possible.</p>
Loss of remote camping experience accessed by 4WD	SEC04	KNP PoM to be amended to consider potential sites that could offer a comparable experience to Lobs Hole Ravine such as those located on management trails that do not currently allow public access.
Increased visitation to other camping areas during Exploratory Works	SEC05	Site master planning be undertaken for busier areas, potentially affected by displacement of Lobs Hole Ravine users (Three Mile Dam, Yarrangobilly Village, Eucumbene River, Blowering campgrounds) and increased demand from Exploratory Works workers, to determine whether they will need any expansion, and how the current visitor experiences in those places will be maintained.
Restricted access to Talbingo Reservoir for recreational users	SEC06	Restrictions to access to Talbingo Reservoir at the spillway end for recreational users should be timed to avoid the peak visitor use periods (ie 7am-9am on weekends and school holidays between October and April).
Impact of increased traffic in KNP on recreational users	SEC07	Traffic management arrangements will be put in place to minimise the amenity and safety risks for recreational users during periods of high traffic flow.

**Table 5.18**      **Summary of mitigation measures**

Impacts/risks	Reference4#	Measures
Maximising economic benefits	SEC08	<p>Snowy Hydro would engage with the contractor(s) for Exploratory Works to ensure that its approach to employment embodies the following principles where possible:</p> <ul style="list-style-type: none"> <li>• a preference for local employment;</li> <li>• encouraging local contractors to tender for work; and</li> <li>• use of local businesses.</li> </ul> <p>In order to achieve this outcome, Snowy Hydro in consultation with the contractor(s) for Exploratory Works, proposes to:</p> <ul style="list-style-type: none"> <li>• provide advance information about the approach to workforce sourcing, recruitment policies of local people and work arrangements;</li> <li>• work with recruitment, education and training providers in the local area to encourage the provision (in advance of project commencement) of future employment and training opportunities for skills that would be directly and indirectly generated by Snowy 2.0, including Exploratory Works; and</li> <li>• participate, as appropriate, in business groups, events or programs, and/or provide training programs directly relevant to project needs or broader industry skills (including programs specifically designed to assist local companies to comply with likely pre-qualification and contractual requirements).</li> </ul> <p>The provision of these activities would be supported by the development of a local employment and business policy.</p>