

## 23 Socio-economic impacts

This chapter includes information from the socio-economic assessment undertaken by the proponent. A copy of the full report is included in Appendix O.

Appendix O includes an Addendum which describes the changes to the social-economic impacts based on changes to the preferred project with respect to the adoption of an upstream outlet location and closure of Angle Crossing beach. This alternate location was selected following community input prior to and during the exhibition of the draft EIS/EA. Details on the reduced social impact as a result of this alternate location are detailed in Appendix O and referenced in this chapter.

### 23.1 Methodology

The socio-economic assessment involved:

- Data collection and review;
- Site visit and key stakeholder consultation;
- Community profiling;
- Review the concerns and suggestions of various stakeholder groups;
- Assessing the potential impacts of the preferred project; and
- Outline recommendations for mitigation of impacts.

The assessment considered all known and reasonably anticipated aspects of the proposed project's construction and operation, as is common practice for projects of this nature. Section 1.5 of Appendix O acknowledges that some impacts depend upon final construction methods, such as choice of plant on equipment. This is not expected to impact on the results of the socio-economic impact assessment.

### 23.2 Existing environment

#### 23.2.1 Social environment

The existing social environment of the study area has been considered in terms of three potential areas of impact:

- Primary impact area - Burra and Williamsdale in NSW and Angle Crossing in ACT;
- Secondary impact area - Royalla and The Angle (Smiths Road residents) in NSW, Googong Reservoir (Commonwealth land in NSW), Tharwa in ACT and downstream Murrumbidgee in both ACT and NSW; and
- Regional impact area - ACT and Queanbeyan, NSW.

#### **Primary impact area**

The primary impact area is described as the area within the vicinity of the localities of Burra, Williamsdale and Angle Crossing and forms the study area for the preferred project. This would include the areas that would be impacted by the intake and low lift pump station (including the banks of the Murrumbidgee River) and the high lift pump station as well as the power supply. These would all be located in an area known as Angle Crossing, approximately 30 km south of Canberra in the ACT. In addition, it would include the area impacted by the pipeline, which crosses rural and rural residential land in Williamsdale and Burra before discharging into Burra Creek in the vicinity of the low level crossing on Williamsdale Road near the junction of Burra and Williamsdale Roads.

Compared with the 2006 ACT population of 324,000 and the Queanbeyan population of 34,000, the primary impact area has small, and sparse rural populations of approximately 1,200 (ABS 2006). Williamsdale is a locality on the Monaro Highway, straddling the NSW/ACT border. Williamsdale is characterised by rural scattered farmhouses, with grazing as the main activity, and the site for a significant quarry. At Williamsdale

there is a local service station and general store which serves the needs of passing traffic and the local community.

Burra is situated further to the east in NSW. It is located west of the Queanbeyan River and Googong Reservoir from the Cooma Monaro/Palerang Shire Council boundary in the south to the Palerang/Queanbeyan City Council boundary in the north. Burra is a rural and rural residential area, including many hobby farmers and retirees, and with over 70% of the employees living in the Burra Valley locality commuting to their place of work via car with the vast majority of people working either in Canberra or Queanbeyan (Palerang Shire Council 2007). Burra has a community hall (maintained by residents) an oval and tennis courts, but no retail enterprises.

To the southeast of Williamsdale, Angle Crossing is a swimming hole with a small beach located in the vicinity of where the Monaro highway crosses the ACT/NSW border, on the Murrumbidgee River. The crossing is an access route between Tharwa/Smiths Road and the Monaro Highway, and is used by local residents and businesses as well as by tourists travelling to Tidbinbilla Nature Reserve or Namadgi National Park. The beach is a popular location for recreation, and is the site of social and anti-social behaviour in the evening. Visitor levels are less than those for similar nearby recreation resources (such as at Smith's Road near the Namadgi visitor centre and Pine Island).

Residents of this area generally use the social infrastructure (such as medical, cultural, education, retail and recreational infrastructure) that is available in the nearby population centres of Queanbeyan and Canberra.

The Burra community is socially and politically active, and during consultation undertaken for the preferred project residents have articulated that the values they hold for their community include:

- Privacy/seclusion;
- Beauty of the natural environment;
- Rural lifestyle;
- Views; and
- Ability to farm.

They consider recent changes to their community have included impacts to local roads through increased use. The community has identified that their needs include maintaining undeveloped ridges; sensitive development; and road sealing and upgrading. The Murrumbidgee River, in the vicinity of Angle Crossing, has historically been a place of cultural significance for local and regional Aboriginal people. This significance has reduced in recent history with modification to the river and surrounds.

Other unrelated developments have been confirmed or discussed for the study area, as outlined in Chapter 26.

The potential future implementation of these projects raises concerns for Burra residents some of whom see these projects as the ACT externalising the impacts of their developments to nearby NSW rural areas where residents have no voting power to influence ACT decision makers.

### **Secondary impact area**

Royalla (approximately 10 km north of Angle Crossing) is a semi-urban residential development in NSW on the eastern side of the Monaro Highway. Many residents work or attend school in Canberra, and there are no shops or facilities in Royalla. The highway passing Royalla is regularly trafficked by trucks from the Williamsdale quarry.

Tharwa (approximately 8 km northwest of Angle Crossing) is a small town near the southern border of the ACT, and according to the 2006 Census, has a population of 109 people (at a State Suburb level). People travelling from Tharwa access Tuggeranong to the north via Tidbinbilla Road or via Tharwa Drive. Access to the Monaro Highway is via Tuggeranong in the north, and Angle Crossing to the south.

The Angle (immediately south of Angle Crossing) is a locality in NSW south of Tharwa. Smith's Road is the main road through Angle, linking Angle Crossing Road and Tharwa Road. Primary (most direct) access from Angle to Queanbeyan and south is via Angle Crossing.

Water discharged into Burra Creek will flow through the Googong Foreshores. The Googong Foreshores, which include the Googong Reservoir, provide the venue for recreational activities including bush walking, mountain bike riding, fishing, bird watching, picnics, and boating, with fishing the most popular activity. There are two public access points to the reservoir, the northern access via Googong Dam Road is a sealed road, the southern access (London Bridge Road) is only partly sealed. This road leads to the London Bridge limestone arch (upstream of the reservoir) and the London Bridge Homestead group, both of which are listed on the Register of the National Estate. These are both popular destinations within the Googong Foreshores. Average annual visitor numbers are recorded as 53,000. In the drought year of 2003, the lowest levels of visitor numbers were recorded as 23,000, when boat access was limited.

### **Regional impact area**

Beneficial impacts accrue primarily to the users of water supplied from Googong Reservoir. This is primarily residents and business in Queanbeyan and Canberra. Burra and Williamsdale do not receive reticulated water. However, there is an indirect benefit through a secure regional water supply and a resultant strong economy which helps support the Burra and Williamsdale areas.

### **23.2.2 Economic environment**

Access Economics (2008) anticipate a slowing gross territory product (in ACT) and increased unemployment in the medium term, rising from the 2007-08 low of 2.6% to just over 4.0% unemployment by 2015 and 4.4% by 2017.

The ACT Treasurer announced slowing of growth and demand figures towards the end of 2008, noting that there were several factors contributing to the negative outcome including a slowing of private consumption and decreases in public investment and consumption (Darcy, pers. comm. 2008). Access Economics (2008) predicts that slower growth will continue and ACT economy will see higher unemployment, and that the Territory is expected to experience slower (when compared to recent times) retail turnover and real final demand.

The linkages between this preferred project and the ACT economy include the purchase of input goods and services from other sectors of the economy, such as electricity, employment of labour, distribution of profit to the State's shareholders and taxes received by the ACT government, such as payroll tax.

Historical rates of key macroeconomic indicators (1988-2008) reveal that the ACT has experienced relatively low average annual growth rates over the last 20 years (Access Economics 2008).

Looking at the macroeconomic assumptions are important, as the implied economic growth plays a role in determining the prevailing labour market conditions as well as more accurately assessing the relative impact of a particular project. Access Economics (2008) states:

*...If the ACT economy is assumed to be stagnant over the next 20 years, then this investment, while having the same absolute effect, will have a much greater relative impact on the growth prospects of the economy. This is particularly pertinent given the risks in the years ahead due to the global financial crisis.*

## **23.3 Impact assessment**

Impacts on directly affected landowners, both to amenity during construction and as a result of ACTEW's permanent easement over landholdings have been assessed through on-going discussions and negotiations with individual landholders. ACTEW's offer of compensation to affected landholders has been determined by valuation method in accordance with the *Land Acquisition (Just Terms Compensation) Act 1991*. This section of the EIS considers the broader socio-economic impacts upon the local community and the water-users of Canberra and Queanbeyan.

### 23.3.1 Social impacts

#### **Construction**

Potential impacts during construction would include:

- Use of land for construction – land required for construction activities would be occupied for the duration of the construction period. This may also generate potential access issues (for residents, farm management and stock), and would vary with the size, dimensions, land use and topography of the land and the corridor requirements. Potential land use impacts are considered in chapter 17.
- Traffic and access – the preferred project would generate increased traffic and the potential for traffic and transport impacts. Current road users include local residents, horse riders and those accessing the study area for recreation, would have the potential to be impacted by construction activities. Potential traffic and transport impacts are considered in chapter 25.
- Disturbance to stock and animals – construction on or adjacent to properties has the potential to disturb feeding, parenting and watering habits of animals unfamiliar with noise, vibration or unknown presence. Any disturbance to stock could have social and financial impacts, by causing extra time to be expended (eg if needing to change hand-feeding locations, or locking stock up), and possibly cause emotional distress to the owners.
- Recreational amenity - construction of the intake/low lift pump station will impact on users of the Angle Crossing area. As a result of concerns about public safety, Angle Crossing beach and parking area will be temporarily closed for the duration of construction – a period of approximately 16 months. It has been agreed with ACT Parks Conservation and Lands (PCL), the managers of Angle Crossing, that an alternate recreational area be utilised during construction, and that the site of Tharwa Sandwash, located downstream, and approximately 9km by road, would be a suitable alternative site for recreational users. To support the suitability of Tharwa Sandwash as an alternative recreational area, the proponent will engage a landscape architect to work in conjunction with PCL to develop a Masterplan for the Tharwa Sandwash and that the proponent will be responsible for Stage one of the works. Stage one works at Tharwa Sandwash will be completed prior to the closure of Angle Crossing beach and are likely to include:
  - A commitment that all work undertaken retain the natural amenity of the area;
  - Modification made to car parking areas;
  - Reestablishment of two access points (and steps) to the beach and any dead trees and weeds be removed;
  - Establishment of a picnic table area;
  - Signage marking the area as an alternative recreational area, including notification of nearby toilet facilities at Tharwa; and
  - Carry out other planting, weed management issues which arise and are agreed between the proponent and PCL.
- Noise and vibration – residents are likely to be concerned about the potential for noise impacts during construction. Noise and vibration issues relate to privacy and stock disturbance and require careful management during the construction period. Potential noise and vibration impacts are considered in Chapter 20.

Social impacts experienced through the construction period would be temporary and limited to the duration of the construction period. Implementation of the CEMP and community engagement and stakeholder management plan would assist in minimising these impacts.

Potential land use impacts are considered in Chapter 17.

## Operation

Potential social impacts during operation are more enduring; including enduring benefits, and are expected to include:

- Property impacts – clearing and restrictions on use of the pipeline easement may affect visual amenity, planting along the easement and potential for the introduction of weed species. Together these may be considered to have the potential to have a low impact on property land values;
- Water supply – in addition to the anticipated water customers in the ACT and Queanbeyan (including projected population increases and new land release areas in Queanbeyan), the inclusion of hydrant outlets along the pipeline for use by local Rural Fires Services (who are not on reticulated water) would provide a local benefit. Additionally, the relocation of the outlet structure further upstream in Burra Creek effectively increases the water supply to the creek in the Burra area which will permit riparian revegetation and habitat improvements as well as increase the creeks aesthetic and recreational amenity;
- Access to Googong Foreshores – increased reservoir levels would increase access for fishing, especially for the disabled. Tourism numbers have also frequently aligned with reservoir levels, and thus are expected to result in an overall increase in tourism to the Foreshores and Reservoir, resulting in a moderate positive impact and potential positive economic impacts;
- Recreational impacts at Angle Crossing – given its already altered state, the assessment of low anticipated visual impact from the intake and low lift pump station structure and the absence of safety concerns or noise from operation, the preferred project is likely to increase aesthetic or recreational amenity in the long term through the preparation and implementation of detailed plans plan for restoration of Angle Crossing following construction. This restoration plan would be done in consultation with PCL and in keeping with proponents rehabilitation of easement commitments would include:
  - A program of advance plantings near car park, picnic area and toilet facilities, together with an agreed maintenance schedule for watering and associated activities post-construction. This is to ensure successful re-establishment of plants and minimisation of weeds in the area and will be in line with ACTEW's rehabilitation plans for the easement;
  - Installation of picnic tables, to improve the amenity of the area;
  - Reestablishment of toilets if damaged or works have impacted on the area;
  - Reestablishment of the access track to the carpark, including steps; and
  - Potential erection of permanent interpretive signage to highlight the significance of the area, the Murrumbidgee to Googong Water Transfer and associated infrastructure; and

Other social risks may also arise from the preferred project, including aggravating inter-jurisdictional issues (the tensions between ACT beneficiaries versus those affected in NSW) and erosion of community cohesion (as a result of pipeline route negotiations).

There are no identified educational or scientific values in the area that would be affected by the preferred project operation.

No potential ongoing amenity issues, such as impacts to the local noise, air quality or traffic environment, are expected during the project operation. Noise potentially associated with air and scour valves was raised during public consultation on the draft EIS/EA. Analysis of the potential noise and response to these concerned is discussed in Chapter 20. Maintenance activities have the potential to generate minor increases in the background levels of noise, dust and traffic; however these would be temporary and short term. These issues are discussed further in Chapters 20, 21 and 25.

The main potential ongoing amenity impact would be the visual impact of the new structures in the landscape. Potential visual impacts are discussed in Chapter 18. The main visual impact of the preferred project would be the change in the landscape at Angle Crossing and at the sites for the high lift pump station and the outlet structure. This has the potential to be more significant at Angle Crossing because of the

existing recreational use of the area, and a number of mitigation measures are provided in chapter 28 to minimise the potential impacts.

### **23.3.2 Community benefits**

At various stages of the preferred project's community engagement process, the Burra community has asked whether there would be any benefits for the local community as a result of the preferred project. It is therefore appropriate to consider benefits that the proponent would contribute for the enhancement of the Burra community.

There may be potential community wide benefits that help to retain, improve or provide appropriate services, facilities or features that are important to the local community. The access to pipeline water by the Fire Brigade is one such benefit.

The community has already made several specific requests and suggestions in relation to community benefits. Some of these requests, such as the provision of fire fighting water points, are already being integrated into the preferred project. Shortening the pipeline to relocate the discharge structure further upstream on Burra Creek was also a local community preference adopted by the proponent in order to improve flows and riparian ecology in Burra Creek in the vicinity of Burra village. The community has expressed a desire for savings made by the proponent be directed to environmental programs and monitoring of Burra Creek. The proponent is also considering requests that could be potentially viewed as a community improvement.

The proponent will work with Palerang Shire Council and community members to identify and assist the progression of potential community benefits, including road realignment and safety improvements at Gibraltar Saddle, maintenance of Burra Creek vehicle crossings, greenways and riparian revegetation of Burra Creek adjacent to Burra village and raising of pedestrian access to London Bridge Homestead above the predicted high water mark.

### **23.3.3 Employment and other economic impacts and benefits**

The workforce during project construction is expected to involve 100 workers for the main project components. Approximately 30 workers may be required for the ancillary infrastructure.

It is expected that approximately half the construction workforce would be sourced locally or from nearby areas, most likely from Canberra and Queanbeyan. Any benefits or pressures on accommodation would therefore fall on Canberra or Queanbeyan where accommodation pressures are not expected to be significant. It is expected that workers would stay (and therefore seek entertainment and services) outside of the Williamsdale-Burra-Royalla district, and that adoption of codes of behaviour would manage and avoid significant impact on the local community.

It is also expected that employment would be generated in NSW, from businesses supplying construction materials, however this has not been estimated.

Access Economics (2008) found that, in the ACT between 2008/09 to 2010/11 a total of 951 full time equivalent jobs would be generated (both directly and indirectly) as a result of both this preferred project, and the Enlarged Cotter Dam (ECD) (refer to Table 23.1).

It is estimated that the Enlarged Cotter Dam would generate about two thirds more labour than this project, meaning that an estimated 300 full time equivalent jobs would be generated directly and indirectly by the project over the same period.

**Table 23.1** Employment impacts, ACT, 2008-09 to 2010-11 (full time equivalents)

	2008-09	2009-10	2010-11	Total person-years of employment*
<b>Direct</b>	152	279	154	585
<b>Indirect</b>	91	141	134	366
<b>Total</b>	<b>242</b>	<b>420</b>	<b>289</b>	<b>951</b>

Source: Access Economics estimates \*Person-years are the FTEs per annum of employment created

Whilst the economic impacts of the preferred project have not been assessed separately, the Access Economics Report (2008) found that construction activity of the ECD and this preferred project combined are expected to generate sufficient demand to affect prices, with an impact on the wider economy and the potential to affect demand in other sectors. The collective effect of both the preferred project and the ECD is expected to result in increases in real gross territory product, from \$52 million in 2008-09, to \$111.6 million in 2010-2011. Similarly, real household consumption is also expected to increase during the investment phase from \$23.6 million in 2008-09, to \$60.1 million by 2010-2011, together with an increase in employment in the ACT, as illustrated in Table 23.2.

**Table 23.2** Real economic indicators 2008-09 to 2010-11 (deviations)

	2008-09	2009-10	2010-11
<b>% Deviation from reference case</b>			
<b>GTP</b>	0.200	0.390	0.376
<b>Real household consumption</b>	0.175	0.366	0.393
<b>Employment</b>	0.131	0.215	0.138

Source: Access Economics estimates

Access Economics note that employment is modelled to increase by 0.131% over the reference case in the first year of investment, by 2009-10 employment is set to increase by 0.215%, in the final year total employment is modelled to be 0.138% above the reference case.

The timing of the preferred project is therefore important, occurring when other construction work in the ACT is waning. The global financial crisis is causing a further decline in employment prospects, and thus the benefits are expected to be enhanced beyond that projected.

### **Net cost benefit analysis**

The economic benefits of water supply infrastructure can be derived by balancing the capital cost of increased security of supply against the benefit of reduced time in water restrictions. Too much security would lead to costs that exceed community benefits, and too little security would result in unrealised benefits, or alternatively in unnecessary costs of water restrictions. As new water supply options are generally long term capital intensive investments, when they are put in place and when the benefits start to accrue would also have an affect on the net benefit (ACTEW 2007d).

It is important to recognise that there is a social benefit to the ACT and region of reducing time spent in water restrictions as well as an economic benefit. This involves understanding the extent to which the community values water security and comparing this valuation with the capital cost of providing this security.

Households benefit from reduced time spent in water restrictions (in their use of water around the home and for recreational activities), as do businesses (including the tourism sector); owners and operators of

community facilities; government; and water utilities (in terms of enforcement and lost capacity) (ACTEW 2007d).

The net economic benefits were calculated in March 2009. This took into account revised costs of restrictions; escalated capital costs as acknowledged by the Independent Competition and Regulatory Commission; changed cost to obtain Tantangara water; completion dates of new infrastructure and updated population. The calculations indicated that the community would be better off in economic terms, even considering the capital cost, by the provision of additional water supply (CIE 2009).

With the preferred project implemented in isolation, these reduced periods of water restrictions have been revised and are now estimated to save \$866 million over the period 2010 to 2032 (based on the do nothing approach) (NPV 2010-32, 5% discount rate) (CIE 2009), resulting in a net economic benefit of over \$500 million.

Table 23.3 demonstrates that with the combined affect of the projects - while the capital expenditure increases, the overall cost of time spent in restrictions reduces markedly.

**Table 23.3** Average cost and benefit data

Option	Average NPV 2010-32, 5% discount rate (\$million)				
	Capital cost	Restrictions cost	Operating cost	Total cost	Net benefit
Do nothing	\$0	\$866	\$123	\$989	\$0
78 GL Cotter	\$241	\$198	\$117	\$556	\$433
Angle Crossing	\$116	\$178	\$154	\$448	\$541
78 GL Cotter + Angle Crossing	\$357	\$84	\$151	\$592	\$397
78GL Cotter + Angle Crossing + Tantangara	\$391	\$62	\$169	\$622	\$367

Source: CIE 2009

## 23.4 Summary of results

Both positive and negative social impacts would result from the construction and operation of the preferred project.

Beneficial impacts as a result of operation include improved water security and the resultant economic benefits to the ACT and Queanbeyan region. Improved water security means increased security for beneficial uses of water and to fuel regional economic growth. Indirectly, the majority of Burra residents also benefit from this security as it also underpins a prosperous and stable Canberra economy, where many Burra residents work or draw their income. The success of the Canberra economy also has the potential to positively impact on land values in outlying rural residential areas such as Burra and Williamsdale local water supply will be provided in the form of hydrants for emergency fire fighting, and the pipeline will discharge into Burra Creek such that it augments flows in the Burra village area.

Where the impacts are negative, they have been assessed as being moderate in significance, and able to be minimised and managed to a large degree by the adoption of best practice construction management. The majority of the negative impacts relate to the social values attached to the physical environment and the impacts on these features such as; impacts on people's land and land uses; social values people place on public lands; and, social values of the character and amenity of their environment.

During the construction phase, potential social impacts would be minimised through careful planning and the adoption of appropriate mitigation measures. Construction has the potential to impact negatively on the amenity of Williamsdale. The increase in traffic, noise and disturbance to property access would all modify the quiet rural ambience to a moderate degree. Additionally, access to and the amenity of Angle Crossing would be reduced for the period of construction. These impacts would be of a limited duration. While the local community in general would be affected by this altered amenity, those primarily impacted would be landholders where the pipeline runs through or adjacent to their property.

The proponent would work with Palerang Shire Council and community members to identify potential community mitigation measures and would ensure that the wider community is consulted. This would offset to a degree the potential negative impacts of the preferred project on the local community.

The preferred project is expected to generate a net economic benefit of over \$500 million to the ACT region as a result of savings due to reduced water restrictions. Employment generated by the preferred project, both directly and indirectly, would also bring significant benefits.

### 23.5 Mitigation measures

The following mitigation measures would be applied:

- Consultation with the community and agency stakeholders throughout the preferred project planning and construction phases, as outlined by the CESM, to ensure that community members have adequate information about the project and the timing and scope of activities in their area;
- Consultation with affected and adjacent land holders with farm animals to determine mechanisms to reduce noise and disturbance to animals;
- Temporary closure of Angle Crossing beach as a result of concerns regarding public safety;
- Completion of Stage one of works at Tharwa Sandwash prior to temporary closure of Angle Crossing beach to improve amenity for recreation users.
- Traffic management measures to account for the special needs of the equine owners; and
- The proponent would work with Palerang Shire Council and community members to identify potential community mitigation measures including already agreed partial upgrade of Williamsdale Road,

