# 29 Preferred project justification and conclusion

## 29.1 Justification for undertaking the preferred project

There is a justified need for the preferred project to deliver water security for the ACT and region. The preferred project was developed from an extensive range of studies, investigations and strategy options. These options considered a full range of possible alternatives to the preferred project. This section provides a summary of these findings, which forms part of the justification for the preferred project.

As Canberra has grown, so has the demand for water. In recent years the ACT region has been experiencing severe drought conditions coupled with the impact of the 2003 bushfires and substantial reductions of inflow into regional dams. Canberra and Queanbeyan have been subject to water restrictions for six years. Level three water restrictions have applied for the last three years. The recent drought, together with predicted climate change and long term population growth, is driving the implementation of a more reliable water supply for the ACT.

Extensive consideration of options for securing water supply for existing and future ACT and Queanbeyan residents, cumulated in the recommendations by the proponent to the ACT government in 2007. Those recommendations recognised the need to more diversify the source of water supply beyond local catchments. The has key challenge is to build additional water supply assets that can cope not just with substantially reduced local inflows to reservoirs, but also with more frequent and longer droughts.

The ACT Government's water resources strategy, '*Think Water, Act Water*', encompasses and supports the elements of the National Water Initiative that are applicable to the ACT. The strategy provides key targets on water saving and water re-use (demand management). Permanent water conservation measures were introduced in Canberra and Queanbeyan in November 2005. The target reduction for the permanent measures was 8%. A 23% reduction in consumption was observed during the year that they were introduced, relative to the pre water restriction consumption pattern. While drought contingency projects and restrictions have enable ACTEW to avoid stage 4 restrictions (no use of potable water for gardens, and permits system for other external uses of potable water), it is clear that additional supply is required to secure long term water supply.

In response to this need, the proponent developed the Water Security Program, which identified a range of new water supply projects. The preferred project is an important component of the Water Security Program, necessary to secure the ACT and region's water supply. It is supported by the ACT Government in its announcements in October 2007 and March 2008.

The preferred project will deliver improved security to the ACT's water supply. The preferred project would assist in securing the ACT's water supply by transferring water from the Murrumbidgee River to Googong Reservoir, via Burra Creek, in a sustainable manner that will:

- Protect the environmental values and recreational amenity of the Murrumbidgee River, Burra Creek and Googong Reservoir;
- not cause significant environmental impact along the pump/pipeline corridor;
- not cause significant social impact local communities, and
- Delivery a net economic benefit of more than $500 million to the communities of ACT and region.

It will achieve the latter by avoiding the need for these communities to suffer extended periods of high-level water restrictions.

The need to plan for an adequate new water supply has been identified by various strategic planning documents and the project has been endorsed by the ACT Government;

The consequences of not proceeding are as follows:

- The region's future water security would not be assured, and it would be difficult to meet the water needs of current and future populations without extensive water restrictions;
- Existing storage and water treatment capacity at Googong Reservoir would remain under utilised;
- Alternative water supply source alternatives would need to be implemented at a higher community cost; and
- The net cost to the community would be substantial due to the delay in implementing alternative options and consequent longer periods in high levels of water restrictions.

The preferred project is in accordance with the principles of ecologically sustainable development. The preferred project has been assessed against the Australian Green Infrastructure Council sustainability categories, the principles for sustainable development in the ACT *Territory Plan* the NSW principles of ecologically sustainable development and has found to be consistent with all three.

## 29.2 Conclusion

This EIS has considered the potential impacts of the preferred project, which involves construction and operation of infrastructure with the capacity to transfer up to 100 ML/day of water from the Murrumbidgee River (within the ACT) and transferring it via a pipeline to the Googong Reservoir via Burra Creek (in NSW)..

The infrastructure required to transfer the water includes an intake/low lift pump station, a high lift pump station, an underground pipeline, a mini-hydro power generator, an outlet structure and power supply.

This EIS has been prepared in accordance with the requirements of Part 3A of the NSW *Environmental Planning and Assessment Act 1979* and section 216(2) of the ACT *Planning and Development Act 2007*. It has also been prepared to support an application to the NSW Minister for Planning and the ACT Planning and Land Authority for planning approval to construct and operate the preferred project. The assessment addresses the requirements of the Director-General of the NSW Department of Planning (the Director-General's Requirements) dated 7 October 2008 and the Final Scoping Document prepared by the ACT Planning and Land Authority (the Scoping Document) dated 16 December 2008.

This final EIS follows the public exhibition of a draft Environmental Impact Statement/Environmental Assessment and features responses to submissions received during this public exhibition period. Responses to specific questions and comments raised during public consultation are discussed in Chapter 4 of this EIS and in more detail in Appendix S.

The environmental investigations undertaken included specialist assessments on the potential for environmental impacts on hydrology, ecology; heritage; soils and groundwater; landscape and visual amenity; noise and vibration; climate; greenhouse gas; social and community traffic and transport; and health.

The assessment has documented the potential environmental impacts associated with the preferred project, considering both potential positive and negative impacts of the preferred project, and identifies mitigation and management measures to protect the environment where required. Potential impacts include (in summary):

- Degradation of geomorphology and aquatic ecology in Burra Creek during operation;
- Degradation of endangered ecological communities and threatened species during pipeline construction;
- Unacceptable levels of noise and vibration impacts during construction and operation;
- Aboriginal sites have the potential to be directly impacted by the preferred project;
- Two heritage listed sites have the potential to be directly impacted by the preferred project; and
- Impacts on the recreational use of the Angle Crossing area during construction.

The construction and operation of the preferred project would be supported by the implementation of best practice management techniques defined by the construction and operation environmental management plans, and the proposed monitoring plan. These plans would also ensure compliance with relevant legislation and any conditions of approval. Chapter 27 summarises the potential residual impacts and summarises the environmental management measures that would be undertaken to ensure these potential residual impacts will not be realised. Mitigation measures have been incorporated formally into the statement of commitments provided in Chapter 28.