29. Project justification and conclusions

29.1 Justification for undertaking the Project

There is a strong need for the Highlands Source Project as part of the strategy for securing Goulburn's and the region's water supply. The Project was developed as an outcome of a range of studies, strategies and reports that considered a broad range of options. These options were part of a comprehensive consideration of the full range of possible alternatives to the project, as presented in Chapter 7. This section provides a summary of the findings of these chapters, which forms part of the justification for the project. The justification of the project in accordance with the principles of ecologically sustainable development is provided in Section 6.12.2.

Inflows into the drinking water storages within the Goulburn drinking water supply catchment have been below average for past 10 years. The Goulburn Mulwaree region has faced severe drought and water restrictions since 2002. In 2007, Goulburn received widespread publicity when the city's water security recorded critically low levels with storages at 12 per cent of capacity, equivalent to less than 12 months available water supply. At this time, the Goulburn community was subject to Level 5 water restrictions which severely limited the use of water by all community residents, businesses and tourists. Level 3 water restrictions are currently in place, however more severe restrictions may come into force should sufficient rainfall and runoff not occur. An alternative source of water supply is critical to securing the future of Goulburn's water supply.

GMC in conjunction with a State Government Task Force identified an emergency pipeline from Wingecarribee Reservoir as the best means of overcoming the water supply emergency and securing Goulburn's water supply for the future (GMC & DoC, 2007). Subsequent rains in June 2007 and the water saving efforts of the community removed the emergency aspect of the Project. However the need for improved water security remains. If current conditions continue, Goulburn may face the same restrictions again in the near future.

GMC has prepared an Integrated Water Cycle Management Evaluation Strategy that will outline actions for improving long term water sustainability. This Project is an integral part of this Strategy. Additionally, GMC has undertaken a Goulburn Water Supply Strategy Review, in which the Project was identified as the best solution for improving the city's water security. The proposed additional water would supplement the existing Goulburn water supply system.

The Project will contribute to the future water security of Goulburn. Some specific benefits of the Project include:

- Providing a level of water supply security for Goulburn that is consistent with other communities in NSW;
- Enabling severe water restrictions to be replaced by demand management measures – while water restrictions would likely still be required, the risk to Goulburn residents of facing a repeat of the severe Level 5 water restrictions incurred during 2000 to 2005 will be reduced.
- Greater water security would provide Goulburn with improved opportunities to attract business and industry.
- Providing an alternative water source would provide environmental relief to the already stressed Wollondilly River, improving the amenity provided by the River to downstream communities.

- The Project is well aligned with re-use and demand management programs to accommodate growth in Goulburn that are currently proposed in the Integrated Water Cycle Management Strategy which is under development.
- Important community facilities, such as the swimming pool and sporting fields, will be less likely to be closed due to unavailability of water to operate and maintain these facilities.

The project forms part of the GMC's water security planning. The consequences of not proceeding are as follows:

- Goulburn'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. Goulburn could run out of water, even if severe and onerous water restrictions are applied, unless some unforeseen event occurs;
- The need to plan for an adequate new water supply has been identified by various strategic planning documents and has been endorsed by GMC, various NSW Government agencies and the Commonwealth Government;
- There would be less diversity of water sources and higher risk of more severe water restrictions;
- Other water supply alternatives would need to be implemented at a higher community cost; and
- The net cost to the community would be substantial due to the significant social and economic costs associated with water restrictions.

The Project is an important part of Goulburn Mulwaree's Integrated Water Cycle Management Plan and is necessary to secure Goulburn's water supply. It is supported by the Commonwealth and NSW Governments and by the Goulburn Mulwaree Council.

The Project has been assessed against the NSW principles of ecologically sustainable development and has found to be consistent with all these principles.

29.2 Conclusions

This Environmental Assessment has considered the potential impacts of the Project, which involves pumping water from the Wingecarribee Reservoir and transferring it via a pipeline to the Goulburn water supply. The Project involves construction and operation of infrastructure to transfer up to 7.5 ML/day of water a distance of approximately 83 km from the Wingecarribee Reservoir to Goulburn.

The infrastructure required to transfer the water includes a pump station, an underground pipeline and connections to the existing Goulburn water supply network.

This environmental assessment has been prepared in accordance with the requirements of Part 3A of the NSW *Environmental Planning and Assessment Act 1979*. It has also been prepared to support an application to the NSW Minister for Planning for planning approval to construct and operate the project. The assessment addresses the requirements of the Director-General of the NSW Department of Planning (the Director-General's Requirements) dated 14 December 2009.

Environmental investigations were undertaken during the preparation of the assessment to assess the potential environmental impacts. These included specialist assessments on issues involving potential environmental impacts on drinking water quality; ecology; heritage; soils and groundwater; hydrology, geomorphology, landscape and visual amenity; air, noise and vibration; greenhouse gas; social and traffic and transport.

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

- Ecological impacts from vegetation clearing during construction;
- Noise and vibration impacts during construction;
- Aboriginal sites and one non-Indigenous heritage sites have the potential to be directly impacted by the Project;
- Water quality impacts from release of scour water during operation; and
- Geomorphological impacts to waterways crossed by the pipeline.

To manage the potential impacts identified by the assessment, and in some cases remove them completely, the assessment chapters outline a range of mitigation measures that would be implemented during construction and operation of the Project. Chapter 27 summarises the environmental management measures that would be undertaken. Both the construction and operation of the project would be supported by the implementation of best practice management techniques defined by the construction and operation environmental management plans. These plans would also ensure compliance with relevant legislation and any conditions of approval. Mitigation measures have been incorporated formally into the draft statement of commitments provided in Chapter 28.