EXECUTIVE SUMMARY

The Need for water trading

Water scarcity lies at the heart of the need for water trading. 10 of South Africa's Water Management Areas are currently deemed to be over-allocated. The demand for water use entitlements will therefore exceed the supply of water use entitlements where scarcity exists, hence the trading of water resources is one avenue through which water users can acquire water use entitlements.

Trading of water use entitlements

Four types of water trading are discerned:

- Permanent intra-sectoral trades
- Permanent inter-sectoral trades
- Temporary intra-sectoral trades and
- Temporary intra-sectoral trades.

Permanent trades require that ownership of entitlements be surrendered (in full or in part), to be used by another party for the same, or different purpose. Temporary trades require that privileges (but not ownership) of entitlements be temporarily surrendered (in full or in part) to another user. Temporary trades are becoming the most popular form of water trading internationally.

The nature of trades expected

Water trading has been practiced for a number of years now, predominately within irrigation boards (which are now transforming to Water User Associations). In a water trading survey undertaken as part of this project, WUAs and Water Service Providers (WSPs) indicated that the trading of water use entitlements is of high importance. Interestingly though, the WSPs cited inter-sectoral trade as being the most important, whereas WUAs indicated intra-sectoral trade as being the most important form of trade.

An assessment of current (2000) and projected (2025) water use by sector (NWRS, 2004), would however suggest that inter-sectoral trading is important, and possibly necessary. Reasons for this assessment include: (i) the proportional water use by domestic and urban water users is expected to grow, (ii) urban and industrial water users can generally afford to pay more for water than the irrigation sector, and (iii) given the fact that many catchments are over-allocated, this may be one of the more cost effective methods with which industrial and domestic water users can secure water use entitlements.

Externalities

Any form of water use entitlement re-allocation may induce externalities. Water trades will need to be regulated to control the externalities.

Administration

Trading is a powerful, incentive based management option with which water use efficiency can be induced. However, high transaction costs have been cited for one of the main obstacles to trade. It is essential that the regulation and administration of water use entitlements be efficient and affordable.

Conclusions and recommendations

There is a high need for water trading in South Africa. Inter and intra-sectoral temporary trades promise to be the most important types of trade in the future. Very few inter-sectoral trades are happening presently, but will probably take place after the completion of the compulsory licensing process (i.e. the initial allocation of water use entitlements). The key recommendation is for water

administrators to develop affordable and effective systems to support, and regulate, water trades. It is recommended that use is made of GIS-based systems, as these will facilitate the identification of third party effects, as well at the identification of other logistical issues.

Acknowledgement
Water trading is not always viable, and may in certain circumstances not be the most appropriate management instrument. A combination of centrally managed allocation (for equity and sustainability objectives), and water trading (for efficiency purposes) is advocated.