

## Water supply issues are a key assessment item

The potential impact of proposed underground mining on the surface water supply system has been identified as a key area for detailed scientific assessment. A rigorous analysis of potential effects is considered important for the proposed mining area which represents just 6% of the local catchment area.

Factors that govern the supply of water from a catchment are considered to include:

- Amount and distribution of rainfall and amount of evapotranspiration.
- Shape and size of the catchment.
- The geology of the catchment including the nature and distribution of lithologies, soils and alluvial deposits.
- Hydrological characteristics of the catchment.
- Prevailing hydrogeological conditions in the underlying rock formations and alluvial systems associated with the former and present creeks and rivers.
- Types and distribution of vegetation.
- Types and distribution of landuse.
- The amount of water extracted from river sources for irrigation and municipal purposes, and from bores by registered users.

The water quality is also considered important because it can determine the usefulness of the supply for municipal and other purposes.

## Commitment to safeguard water

Given the importance of this issue however, the company has already made public its commitment that the only mine plan that Wallarrah 2 Coal Project will submit to the NSW Government will be one that safeguards the surface and underground water regimes.

The present Gosford-Wyong water supply scheme is based on harvesting potable water from four coastal streams; Wyong River, Mangrove Creek, Mooney Mooney Creek and Ourimbah Creek. During times of insufficient flow to meet the demand, for example during a drought, security of supply is provided by the major water storage dam in the upper reach of Mangrove Creek (Mangrove Creek Dam) and two smaller dam storages at Mardi and Mooney Mooney.

## Mine will be a water supply

The proposed mining operations will not impact on the Gosford-Wyong Joint Water Supply Scheme infrastructure. The proposed mine layout will however underlie, a small section of the Jilliby Jilliby Creek system albeit at significant depth. The W2CP is committed to safeguarding the regional water supply and will potentially be a net provider of water to the supply system in the long term. The Environmental Assessment will review the project's implications on the Jilliby water source and other issues related to water resource management and fluvial environment.

