

### 3.0 BRIEF HISTORY OF WATER SUPPLY DEVELOPMENT

Yeppoon's first public water supply was constructed in 1889 and comprised a single groundwater well and 45 kilolitre storage tank. This system appears to have served the town until the 1950's although it was necessary to augment the system with a second well in 1941.

From the mid-1930's it was recognised that additional supplies were required and the following is a chronological list of the actions taken by local and State Governments to meet the Capricorn Coast's water needs.

- G Year 1937 Waterpark Creek and Limestone Creek are examined as potential sources of supply.
- G Year 1940 Following construction of a 25.6m bore, which proved unsuccessful, Limestone Creek was recommended as the source on the basis that a Waterpark Creek scheme would be more costly.
- G Year 1948 Construction begins on Limestone Creek scheme but construction is hampered by poor quality materials.
- G Year 1951 A proposal for a second well does not proceed. The alternative option of a 250mm dia. main from the Serpentine to Limestone Creek is constructed.
- G Year 1953 The Serpentine Water Supply fails and the Waterpark Creek scheme is reinvestigated.
- G Year 1960 Waterpark Creek Scheme is adopted by Council and supported by State Government.
- G Year 1964 Construction commences on the Waterpark Creek Scheme.
- G Year 1967 Water is supplied to Emu Park.
- G Year 1969 Waterpark Creek scheme is completed. Daily consumption is 4.5ML.
- G Year 1971 Water is supplied to Keppel Sands.
- G Year 1975 Planning commences based on a supply from the Fitzroy River.
- G Year 1976 Rockhampton City Council agrees to supply water to the Capricorn Coast from the Fitzroy River.
- G Year 1977 Fitzroy River agreement is overturned and planning ceased.
- G Year 1985 Water meters are installed.
- G Year 1988 Woodbury Water Treatment Plant becomes operational.
- G Year 1998 Kellys Offstream Storage is constructed.
- G Year 2002 Planning commences for the Sandy Creek augmentation.

Since the inception of the existing water supply scheme in the 1960's it was generally believed that a scheme based on the flows of Waterpark Creek and Sandy Creek could meet the needs of the Capricorn Coast for some considerable time. Accordingly, the State Government provided Livingstone Shire Council with an allocation of 11,800ML to be drawn from these streams.

Initially, assessment of the reliability of the Waterpark and Sandy Creeks was primarily based on rainfall records, some stream flow estimates and a broad appraisal of the catchment drainage patterns and landform. No detailed hydrological analysis was undertaken.

From the 1980's the need to construct an offstream storage to balance supply and demand and improve the overall reliability of the Waterpark Creek scheme was recognised. Stage 1 of Kellys Offstream Storage was finalised in 1997.

It is only within the last 10 years that reasonable attempts have been made to determine the safe yield that could be properly ascribed to the Waterpark Creek source and the associated offstream storage. Earlier attempts to determine the yield of the stream appear to have been somewhat optimistic. Certainly initial attempts did not take in to account either the need to maintain environmental flows or the overall issue of climate change and a possible reduction in rainfall.

With one exception, prior to the year 2000 no assessment was made of the long term water supply needs of the Capricorn Coast. Until the year 2000 water supply requirements had generally been assessed based on a 20 year timeframe. This timeframe was consistent with the planning report requirements of the State Government.

In the year 2000 Livingstone Shire Council contributed to a regional study which assessed the Capricorn Coast's 50 year water supply requirement at between 11,000ML/a and 13,000ML/a. This study, which was not required to examine the reliability of water supply sources, nonetheless questioned the flows which might be able to be drawn from Waterpark and Sandy Creeks. The study also indicated that in order to meet the long term needs of the Capricorn Coast it would probably be necessary to obtain water supplies from the Fitzroy River via a 500mm pipeline from Rockhampton to the Coast.

As a source of supply the catchment of Waterpark Creek has met the needs of the Capricorn Coast for some 35 years. However, in recent months this source has shown signs of stress and currently considerable doubt exists (November 2004) as to the ability of the source to satisfactorily meet the year 2005 water supply demands.

Overall, it is evident that works must be undertaken to improve the reliability of water supplies to the Capricorn Coast either by augmenting the existing system, accessing an alternative source or augmenting the existing source and accessing an alternative source. This improvement in the reliability of the source is needed even if above normal rainfall occurs in the next few months.