

# CASE STUDY: The History of Water Supply on the Central Coast

## 19. Forward Twenty Five Years

It is twenty five years since Mangrove Creek Dam was built. Although many developments have taken place in the Wyong-Gosford Water Supply System since then (Appendix 1), a number of possible additions to the system considered in the 1970s (e.g. Mangrove Creek Dam Stage 2, a dam on the MacDonald River) did not come to pass. There were good reasons for this:

- a lower human population growth than was predicted;
- a reduction in average annual residential and per capita water consumption;
- lower peak day water demands than were predicted;
- higher than average rainfall experienced in the decade after dam construction.

### ACTIVITY: The nature of Predictions

Predictions are hypothesised outcomes about the future, based on what we already know. Examine Table 4 which shows **predictions** about population growth compared with **actual outcomes** of population growth on the Central Coast. Then answer the questions below.

**Table 4 : Central Coast Population Growth – predictions and reality \***

Year	1975 Range (lowest- highest)	1985	2005
1954	<b>38,000</b>	<b>38,000</b>	<b>38,000</b>
1961	<b>53,000</b>	<b>53,000</b>	<b>53,000</b>
1971	<b>89,000</b>	<b>89,000</b>	<b>89,000</b>
1981	150,000 - 170,000	<b>166,000</b>	<b>166,000</b>
1991	240,000 - 290,000	248,000	<b>240,000</b>
2001	350,000 - 430,000	326,000	<b>295,000<sup>(3)</sup></b>
2011	460,000 - 530,000 <sup>(1)</sup>	390,000	330,000
2021	-	450,000 <sup>(2)</sup>	370,000
2031	-	-	405,000
2041	-	-	445,000
2051	-	-	480,000 <sup>(4)</sup>

\* Figures in **bold** are actual Central Coast populations taken from census data. Figures in regular type are predicted populations, based on trends at the time. The 1975 predictions show the range in expected outcomes - from the lowest estimate to the highest estimate.

Sources: (1) Volume 1 of "Report on Investigations for Water Supply to the Gosford-Wyong Region", January 1975, Department of Public Works N.S.W. (2) Summary Volume of "Report on Investigations for Water Supply to the Gosford-Wyong Region", July 1985, Department of Public Works N.S.W. (3) "Central Coast: Regional Profile & Social Atlas", 2004, p 38. (4) "Review of Scheme and Formulation of Options for Further Investigation", March 2002, Gosford-Wyong Joint Water Supply Authority.

### QUESTIONS:

Compare the actual population in 2001 with the prediction made in 1975 for that year. What effect do you think this would have had on actual water consumption versus predicted water consumption for the Central Coast?

### OPEN-ENDED QUESTION:

Appendix 11 tabulates present day predictions about Central Coast water usage up to the year 2050. Do you think it is any easier in the year 2007 to predict the Central Coast's population and water use forty years ahead than it was in say 1975? Why?