

CASE STUDY: Integrated Water Cycle Management

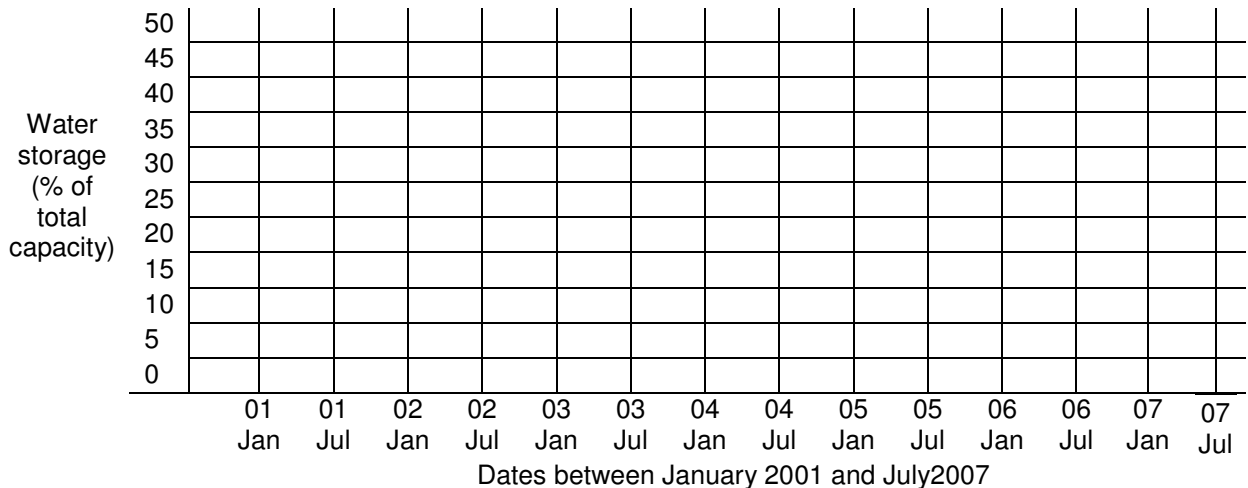
8. Water Extraction from Porters Creek in response to Drought

THE CONTEXT: Australia is the driest inhabited continent on Earth (only Antarctica has less annual precipitation than Australia). Since the mid 1990s the severe drought conditions that have affected many parts of the Australia land mass including most of NSW, have heightened awareness of the vulnerability of our water supplies, rural and urban, to climate variability.

ACTIVITY: Examine the table of data below showing the total amount of water held in all storage areas of the Central Coast water supply (expressed as % of the maximum storage capacity) at specified dates between January 2001 and July 2007.

Date	Total water storage (%)													
	2001		2002		2003		2004		2005		2006		2007	
	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul
Storage %	42	47	44	45	39	37	33	27	25	25	22	16	13	22

Your task is to express this data in a graphical form to better display the changes in water storage that have taken place over the seven year period. Use the grid below to assist you in drawing a **line graph** of the data.



WATER EXTRACTION: By January 2007, the total water storage within Gosford and Wyong Shires of NSW had fallen to 13% of capacity. To guarantee household water supplies, the Gosford/Wyong Councils' Water Authority acted to implement a wide range of measures to cut water consumption and to search out new sources of supply. One of their initiatives was to begin a program of fresh water extraction from Porters Creek. During 2006, a temporary weir was constructed in the wetland, at a point just before it enters Wyong River. A pump was installed and used to extract fresh water to boost town water supply by between 1.5 to three million litres a day. The plan was for the weir to be in place for two years and then to be removed.



Porters Creek enters Wyong River



Porters Creek Pump Station
(source: Wyong Shire Council)

